

THE BEST SELLING MAGAZINE FOR THE

# AMSTRAD PCW

ISSUE 24 • SEPTEMBER 1988 • £1.50

# 8000 PLUS

8256 • 8512 • 9512

## PREDICT YOUR FUTURE!

Astrology and I Ching programs on test



# The 9512 file

Vital information you won't  
find in the manual

PLUS: Complete buyer's guide to Databases, Communications, Education and Programming.



# cp software

NEW

## CLOCK CHESS 88

CLOCK CHESS 88 is the strongest and most versatile chess program yet for your PCW computer. It has the most advanced 3D graphics, the widest range of options, the power to play incredibly fast and the intelligence to selectively search deep into the position.

CLOCK CHESS 88 has been tested against a wide range of other chess programs and has shown itself to be stronger than any of them.

Written using the latest techniques CLOCK CHESS 88 does not use the usual "brute force" method of searching for the best move, but instead is packed with chess knowledge which uniquely allows it to search only those moves which are "sensible" or "interesting" and not to waste time analysing lines of play which it regards as "trivial". In addition, it has a variable search depth which results in a deeper search of active lines, thus reaching those parts that other chess programs cannot.

- massive 44,000 byte, user extendable, openings library
- stunning 3-D graphics
- annihilates other PCW chess programs
- largest range of options, cursor controlled for easy move input
- special easy mode for beginners
- full display of its thought processes gives you a fascinating insight into its search mechanism
- perfect understanding of all the rules of chess including underpromotion, draw by repetition and the fifty move rule
- achieves all the standard mates including those occurring with minor pieces in the endgame - well able to handle difficult pawn endings
- makes full use of the extra memory of the 256K and 512K PCW

"CLOCK CHESS 88 is a lively and interesting opponent. An aggressive program that keeps you on your toes .... it dices up Colossus Chess nicely" Mike Basman, UK Chess Champion.

CLOCK CHESS 88 IS COMPATIBLE WITH ALL PCWs £15.95

NEW

## BACKGAMMON

BACKGAMMON is a fast moving board game where the players use their wits to play strategies making the best use of chance from the throw of the dice. Great graphics. For newcomers there are rules and tips for play.

Easy to learn, but hard to beat!

BACKGAMMON IS COMPATIBLE WITH ALL PCWs £15.95

all you ever wanted to know **PLUS**  
about **GRAPHICS, THE UNIVERSE**  
AND **EVERYTHING FOR PCW**  
but were afraid to ask

UPGRADED VERSION - WITH YET MORE HITHERTO UNPUBLISHED INFORMATION - THIS HAS TO BE THE ABSOLUTELY ESSENTIAL TOOLKIT FOR THE PCW PROGRAMMER

- 50+ ROUTINES AND 100% PCW COMPATIBILITY
- Create devastating graphics using fast smooth, user definable sprites.
- Directly access RAM disc.
- Create User Defined Graphics.
- Modify character set, send UDG's and enlarged characters to dot matrix printer.
- Experiment with sound routines.
- Direct access to Video Ram.
- Discover hitherto unpublished low level hardware information, Ports and edge connector diagram.
- Easy to use from Basic, Pascal, Assembler, CP/M etc.
- Full source code supplied.
- Page in and directly access all 512K ram segments.
- Bit mapped keyboard scanner for fast games software.
- Tips on speeding up video ram access.

### ROUTINES INCLUDE:

Linedraw/Erase, Pixel Plot/Erase, Flood Fill, Create/Plot/Move Sprite, Change char. set, UDGs, Turn Screen on/off, Invert Screen, Sound, Send UDGs and Double Height/Double width chars to dot matrix printer, Wait for Frame Flyback, Delay, Randomiser, Move Cursor anywhere, Read Joystick, Disc Motor On/off, Full Software Reset, Save/Load Memory from disc or Ramdisc, Find System Clock, Save/load Screen, Scan Keyboard ...AND MUCH MORE!

Comprehensive manual plus detailed documented source code.  
"ALL YOU EVER..." as used by Real Time Software to write STARGLIDER

"ALL YOU EVER..." IS COMPATIBLE WITH ALL PCWs £15.95  
Upgrade only ..... Return your old disc plus £12.95

## BRIDGE PLAYER 2000 WITH TUTOR

This is THE BRIDGE PLAYER for both the expert and beginner, with versatile bidding and powerful card play.

Generates random hands and allows bidding in the ACOL system, using Stayman, Blackwood and a choice of No-trump conventions.

Integral Tutor section with twenty set hands, advice and detailed explanation.

Massive range of options and comprehensive information displays.

"The program is very well thought through ... here's your chance to keep your hand in using Player mode... The Tutor teaches you the game as you play... you get a full page of text analysing the whole game, explaining the bidding process and sequence of play.

In the Player mode there's a wide range of options which ensure you can learn something new each time... The display is fine, you play your round with lots of info about the last trick and the score displayed around the edge of the screen... This is a very thoughtful way to get the most out of Bridge on the computer... Bridge Player 2000 is a good one" PC Plus.

"Large and simply explained Tutorial, easy for beginners, could easily keep a Bridge player occupied for the rest of eternity" 8000 Plus

BRIDGE PLAYER 2000 IS COMPATIBLE WITH ALL PCWs £15.95

NEW

## LIGHTNING BASIC

70+ NEW BASIC KEYWORDS AND 100% PCW COMPATIBILITY, THE ULTIMATE PCW MALLARD BASIC EXTENSION.

First ever program able to trap Mallard Basic's command list. Produces devastating graphical output with fast smooth sprites for the games programmer and icons for more professional software. We guarantee you will astound yourself with your capacity for creativity using this amazing software.

Many original features provide the ideal environment for the Basic programmer.

- high and medium resolution graphics, plots, lines, circles, fills
- multiple sprites and icon graphics
- User Definable Graphics, new character sets
- new editing facilities, variable list, search etc.
- save screens and instant multi-screen recall
- full A4 screen dump to dot matrix printer
- timer, sound routines etc. etc.
- easy cursor and printer control
- all functions use simple-to-use BASIC keywords
- masses of demonstration programs supplied on disc
- "knocks spots off other basics!"

LIGHTNING BASIC IS COMPATIBLE WITH ALL PCWs £19.95

NEW

## DRAUGHTS / CHECKERS

DRAUGHTS / CHECKERS - an immensely powerful opponent, several challenging levels of play, kings, 3D graphics etc.

You need real brains to master this classic game of skill.

"The Karpov of the Draughts world"

DRAUGHTS IS COMPATIBLE WITH ALL PCWs £15.95

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Lightning Basic	£19.95	<input type="text"/>
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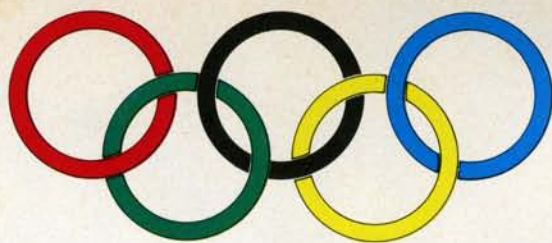
# OPENING MENU

## InValuable Tips SiZzling Offers

Cricket p54

Match on	7-9	Future All Stars	opponents Engle
1	Holmes	Not Out	100
2	Smith	Not Out	25
3	8 Taylor	Caught	108
4	Williams	Not Out	213
5	Bale	Not Out	108
6	Bradley	Not Out	21
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# Will the Olympics come to Manchester? **WE WILL!**

The gold medalist of computer shows is on its way back to Manchester's imposing G-MEX centre.

Amstrad and more than 70 other exhibitors will be displaying the latest products for you to try before you buy.

Need some technical help? Leading experts will be on hand throughout the three days to answer all your queries

With hundreds of special show offers available, every visitor could end up a financial winner.

You can even save yourself a £1 before you get there by using the advanced ticket order form.

## How to get there

Driving? G-MEX is in the city centre - only one mile from the M602 - with ample parking available. It is also within easy reach of Victoria and Piccadilly railway stations, and Chorlton Street bus station.

*The Northern*

**AMSTRAD**  
**COMPUTER**  
**SHOW**



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Please quote credit  
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Be prepared for a warm welcome in "Amstrad Street" - a brand new show feature area, specially constructed for the event.

Take a stroll down the street and see how Amstrad machines are playing a major role behind the scenes in the current northern boom.

- Drop in on the "Amstrad Arms" our answer to the "Rover's Return".
  - Visit "Amstrad School" and observe how students in the north west are benefitting from the new technology.
  - Check out what's going on in a local company where Amstrad machines are providing them with the competitive edge.
  - Inspect the Amstrad innovation workshop.
- And much, much more.

**It will be an  
unforgettable experience.**

**DATABASE EXHIBITIONS**

A528



# WOMEN

Now here's a question. What percentage of home computers are owned by women?

We asked around some of the other magazines produced here at Future. For the PCs the female ownership figure was thought to be around 1%, with the magazine readership a little higher, reflecting the shift away from pure business use to home use, about 5%. The same figures were reported for the PCW's cousin machine in the Amstrad family, the CPC. For the Atari and Amiga, it was thought to be about 5%-10%.

We reckon a far higher proportion of women own PCWs (and read 8000 Plus) – 15%-20%, possibly more. Why should this be?

Well, the PCW is marketed as a 'word processor'. Maybe, with typewriter and/or secretarial experience, many women feel the PCW is less daunting a leap into computerdom than any other machine. And judging by the letters and phone calls we get from female PCW owners, they take to it every bit as well as their male counterparts – not that this should surprise anyone.

The microcomputer market is only a few years old, and is only just shaking off its games machine image. Mention home computers a few years ago and you would immediately think of boys playing Arkanoids and trying to hack into the Pentagon's 'defense' system as a release for that traditional pent-up adolescent male energy.

But this is all changing. PCWs (OK, and some other home computers) are now tackling correspondence, doing home accounts, teaching the kids, producing community newsletters, running clubs, being used for computer aided design and playing games, in addition to serving as indispensable tools in small businesses. And not one of those is inherently a male domain. The micro is coming into everyone's home, saving everyone time and trouble, and giving personal opportunities on the same scale as the advent of the motor car. Being able to use a computer will soon be no more thought a male preserve than being able to drive a car.

So it's nice to know that the clanky old PCW is at the forefront of the popular technology revolution in at least one very significant way. Which is why, unlike most other computer magazines, you won't find a PCW user assumed to be a 'he' in 8000 Plus. It's not because we're closet feminists – it just reflects the balance of our readership. A very encouraging balance.

*Rob Atkinson*

## Czech mate

Hungarian highlighter pens, Polish competition winners – this is turning into an iron curtain edition. A couple of months ago we ran a 'Case in Point' from Stefan Rybar about PCW life in Czechoslovakia. It caused quite a lot of interest and we had several requests for Stefan's address from travellers to Czechoslovakia offering to take him copies of software (legitimate ones, we hasten to add) that he couldn't obtain there.

Thanks to the generosity of our readers, Stefan probably has

the best collection of home computer software the eastern bloc! We'd like to add our gratitude to Stefan's.

One chap, for example, very kindly took him Locokey to enable him to configure his 8256 to produce Czech characters with LocoScript 2. Being knowledgeable about PCW affairs, he shared Stefan's enthusiasm for 8000 Plus as the best magazine around.

Who was he? Well, we won't embarrass him by mentioning his name, but he is a writer on one of our rival mags...

Really, you might even know the guy who supplied me with Mini Office, Batman, some Basic stuff, but most important of all – Locokey !!! His name is \_\_\_\_\_, he writes for \_\_\_\_\_, but in my correspondence with him I plainly stated that it's 8000 Plus what is the PCW magazine. By the way, he says it too (no jokes).

# 8000 PLUS

The golden autumn issue of 8000 falls in October – you can leaf through it in your news—agents from September 22nd.

## Hungary for you

Question: what have recent events in Hungary got to do with the delay in those highlighter pens you ordered from us? Answer: well we're not quite sure either, but our pens are certainly made there and have certainly been delayed through recent events at Budapest New Street Station.

However, we're happy to report that the Hungarian equivalent of perestroika has at last got them moving towards Somerton and they should be

with you shortly.

And, as mentioned last month, we now have a new stock of LocoScript wallcharts. They are available for £1.25 each from our Old Barn address, and for £1.75 you can get them free with our May back issue.



## ComStax Competition

Once again we were deluged by postcards and envelopes for our July competition, in which you had to arrange the furniture in a room to win a ComStax PCW workstand. Ten winners were picked at random from our pile shortly before it was taken away to be treated at the recyclers. The

correct answers, picked equally at random by our judges shortly before they were taken away to be treated, were: A-3; B-4; C-1; and D-2.

The lucky recipients of a ComStax in the colour of their choice to suit their PCW model are: **Adam**

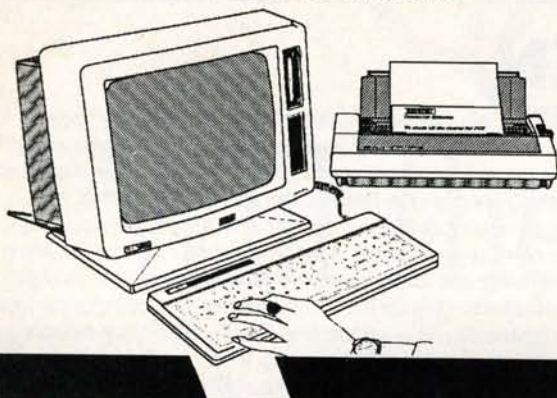
**Morris**, Liverpool; **Mr W M Chambers**, Worcester; **Sue Chambers**, Swindon (no relation); **I S Coleman**, Birmingham; **A R Waileman**, Goring by Sea, West Sussex; **L A Douglas-Smith**, Huddersfield; **H J Elliott**, Stevenage, Herts; **Mrs J Barnes**, Southampton; **Mr S R Langford**,

Durham; and finally **Marek Lasota**, Warsaw (yes, the capital of Poland).

Congratulations – your prizes are on their way. Our thanks to ComStax for helping us to organise the competition – and by the way Marek, how many PCWs are there in Poland?



TRADE ENQUIRIES WELCOME



# ISENSTEIN

## THE D.I.Y. AMSTRAD PCW REPLACEMENT PARTS DEPOT

### ● REPLACEMENT AMSTRAD PCW CIRCUIT BOARDS:-

ORDER CODE	DESCRIPTION	EXCHANGE PRICE	PURCHASE PRICE
710171	PCW8256 PCB, CPU .....	£66.95	£86.95
710181	PCW8512 PCB, CPU .....	£75.95	£93.75
700771	PCW9512 PCB, CPU .....	£80.00	£97.95
111171	PCW8256/512 PCB, Monitor .....	£48.95	£74.25
600771	PCW9512 PCB, Monitor .....	£48.95	£74.25
511171	PCW8256/512 PCB, Keyboard .....	£21.95	£28.95
500771	PCW9512 PCB, Keyboard .....	£21.95	£28.95
831171	PCW8256/512 PCB, Printer .....	£15.95	£27.95
800771	PCW9512 PCB, Printer .....	£15.95	£27.95

### ● REPLACEMENT AMSTRAD PCW DISC DRIVES:-

ORDER CODE	DESCRIPTION	EXCHANGE PRICE	PURCHASE PRICE
500091	PCW8256/512 "A" Disc Drive .....	£64.75	£80.00
422171	PCW8512/9512 "B" Disc Drive .....	£72.75	£96.00
410771	PCW9512 "A" Disc Drive .....	£72.75	£96.00

### ● REPLACEMENT AMSTRAD PCW PRINTER PARTS:-

ORDER CODE	DESCRIPTION	EXCHANGE PRICE	PURCHASE PRICE
210771	PCW9512 Printer Mechanism .....	£79.95	£99.95
721171	PCW8256/512 Printer Mechanism .....	£39.95	£61.95
681171	PCW8256/512 Printer Head .....	£36.25	£36.25
761171	PCW8256/512 Motor Head Drive .....	£14.25	£14.25
321171	PCW8256/512 Paper Holder (Black) .....	£2.25	£2.25
121171	PCW8256/512 Paper Tray (Grey) .....	£8.75	£8.75
432171	PCW8256/512 Printer Head Lid (Black) .....	£5.55	£5.55
112171	PCW8256/512 Tractor Feed Unit .....	£15.75	£15.75
821171	PCW8256/512 24 Volt DC Cable .....	£5.25	£5.25

### ● REPLACEMENT AMSTRAD PCW KEYBOARD PARTS:-

900771	PCW9512 Full Keyboard (Less Case) .....	P.O.A
620171	PCW8256/512 Full Keyboard (Less Case) .....	£46.25
332171	PCW8256/512 Keyboard DIN. Cable .....	£7.25

### ● REPLACEMENT AMSTRAD PCW PARTS MISC:-

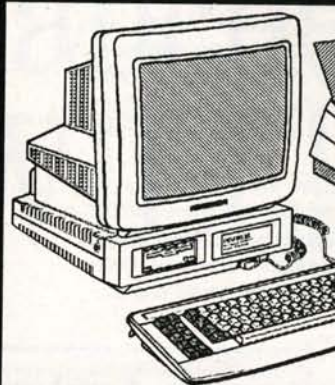
825628	PCW8256 Memory Expansion Kit .....	P.O.A
825611	PCW8256/512 Service Manual .....	£12.00
951211	PCW9512 Service Manual .....	£18.00
310171	PCW8256/512 On/off Power Switch .....	£5.25
320171	PCW8256/512 Line Output Transformer .....	£19.75
650171	PCW8256/512 Main Transformer .....	£18.95

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## CAN YOU HEAR A PIN DROP?

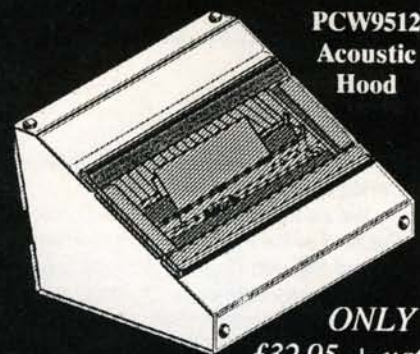
**TRY ONE OF OUR ACOUSTIC HOODS, THEY COST A LOT LESS THAN A HEARING AID!**

● NOT AN ADD ON BUT A NECESSITY:-



Our Professionally made Acoustic Hoods are designed to look good and match the printer it has to silence. If you do not see your make of printer here please phone us for more details.

The PCW9512 Hood comes in two, formats flat pack, "anybody who can knock up a MFI bookshelf should be able to cope! (8000 PLUS DEC 1987) and Ready made for those of you with little time to spare! (POSTAGE FREE)



**ONLY £32.95 + vat POST FREE**

### ● ISENSTEIN ACOUSTIC PRINTER HOODS:-

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AS8202	.....Assembled ....	£29.95
AS9501	AMSTRAD PCW9512 ..Kit .....	£32.95
AS9502	.....Assembled ....	£39.95
AS3101	AMSTRAD DMP3160 ..Kit .....	£29.95
AS3102	.....Assembled ....	£37.95
AS4001	AMSTRAD DMP4000 ..Kit .....	£41.95
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ASL301	AMSTRAD LQ3500 ..Kit .....	£38.95
ASL302	.....Assembled ....	£47.95
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ASL502	.....Assembled ....	£52.95
JK6101	JUKI 6100 ..Kit .....	£41.95
JK6102	.....Assembled ....	£49.95



Perspex Lids

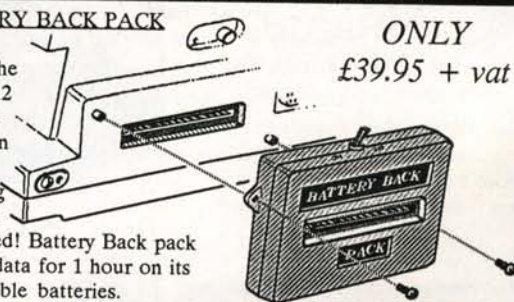


Paper Slots

### ● BATTERY BACK PACK FOR ALL PCW COMPUTERS:-

#### IS8901 BATTERY BACK PACK

Simply plugs into the back of the PCW8256/512/9512 and waits for that silly moment when you turn your PCW off forgetting that all your work had not been saved! Battery Back pack Beeps and holds data for 1 hour on its built in rechargeable batteries.



**ONLY £39.95 + vat**

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- POSTAGE FREE TO MAIN LAND UK
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- EXCHANGE REPLACEMENT PARTS MUST BE WITH ORDER



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## Smooth Set of Wheels

SBS Computer Supplies, leading Amstrad PCW suppliers, have just announced the release of the printwheel cleaning kit for the PCW 9512 daisywheel printer. Although the daisywheel printer has been designed to offer a superior printout quality than the 8000 dot matrix, residues of ink and ordinary office grime are bound to impair that quality.

The kit contains what looks like

an ordinary printer ribbon except that it has been impregnated with a special cleaning solution. It removes dirt and ink deposits and restores quality printout. Included with the kit are special wipes which apparently will remove traces of ink from you and the machine. The ribbon will last for up to ten cleaning cycles. The cleaning kit is priced at £6.99 plus VAT.

Information on 01 434 0153. ■

## 9512 Starts The Presses

Stop Press, the DTP package sold by AMS, is about to be produced in a special 9512 version. Sold at the same price as the standard version (£49.99 or £89.99 with mouse) the new version will allow you to opt for a printer attached to the Centronics port within the program. Well you would look pretty silly trying to print it out on the standard daisy wheel. Anyone who has had problems running Stop Press on a 9512 can get their version upgraded free of charge. For details contact the company on 0925 413501. ■

## Yuppies International

Britain looks set to start exporting Yuppiedom to the Continent, even before 1992, as HPA systems launch a new version of Orgmentor, the personal organiser program that will now generate diaries in five European languages including Spanish and German.

Orgmentor is the program, based on applications of the quite sophisticated programming language available in LocoMail, that will produce everything that you want to stick in your little leather binder which might well be compatible with the organiser produced by Filofax PLC. For instance the diary generator produces a blank diary with one, seven or 21 days per page.

More languages will added (as soon as they discover the Albanian for Tuesday for instance) and they are even considering having a bash at Arabic now that the Euro/Arabic version of LocoScript has now arrived. The only problem is whether the week starts on a Friday or a Saturday. For details phone 08697 508. ■

## Two in One

A major break-through for all LocoScript 2 users who also use programs in CP/M is due this month with the launch of Flipper, a cunning utility to flip from LocoScript to CP/M with only three key strokes.

The program, which will cost £24.95, will also allow you to, in effect, split your 8512, 9512 or expanded memory 8256 into two separate environments. This means you could run two different CP/M programs at the same time and flip between them at will. With the obvious demands this puts on space on the M drive you obviously need the full expanded memory.

New software house Software Imperative (0453 886931) will provide four different modules in the package that will handle virtually any program.

Any problems would probably be with games discs with some sort of copy protection. You switch from program to program by pressing [SHIFT] [EXTRA] and [EXIT] so any program that is normally reset this way should work (except Mini Office Professional of course).

What this means is that you can stop whatever you're doing in your word processor and skip to your database in a matter of three seconds. Then when you are ready you can skip back again to the situation exactly as you left it.

As the whole environment of the other program is saved in the M drive while you are working, there is the possibility of saving the whole thing to disc. You could therefore stop halfway through a complicated process, save it to disc and come back to it when you were feeling enthusiastic again.

Not only is this liable to prove a godsend to weary 8000 Plus software reviewers it could also provide the ultimate 'Here comes the Boss' emergency button to flip from Tetris to your spreadsheet in seconds. ■

# NEWS

## 8256 TOO SMALL?

LocoMotive seem to be abandoning the basic 8256 PCW with new products they are launching at the Personal Computer Show this month. Both the major products being shown are only for the 8512, 9512 or 8256 with an expanded memory.

A fair amount of mystery surrounds the main announcement, obliquely described in the press release as "a major new application to operate beside LocoScript 2, LocoMail and LocoSpell". The suggestion is that it is a utility that would be kept in memory ready to be called up from within LocoScript.

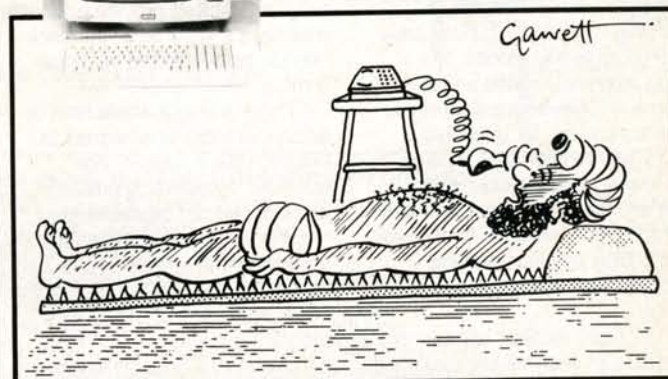
A tightlipped spokesman Howard Fisher would only let slip the fact that the new product was a major change of direction away from the standard word processing products that LocoMotive are best known for. The press release again hints at a low cost package, probably about the same price as LocoMail (£29.95).

It is a sign of the recognition

of PCWs that the other major release will be a version of LocoScript that will support 24 needle printers and even laser printers. This will support the full LocoScript character set – a major font designing task for the higher quality printers. Instead of merely adjusting the standard font to achieve italics, for instance, a whole new font has to be designed – hence the need for the expanded memory to hold the different font styles.

The fact that there is a demand for this version of LocoScript shows that people are now prepared to link up a PCW costing as little as £450 with a near letter quality printer that could cost £800 or a laser printer that could cost at least £1000. Both programs should be available in September.

Also on show for the first time will be LocoFont 2 – four more fonts to augment the 10 styles available in LocoFont launched in June. The new styles include the old favourite Old English and a couple of mini fonts for those times when you want to cram even more of your priceless prose on to a page – at eight lines per inch. There is even talk of a LocoFont version for 24 pin and laser printers. ■



"LOCOMOTIVE SOFTWARE? ... ANY CHANCE OF A 24000 PIN PRINTER DRIVER?..."



## Championing the Cause.

Shortly to be released from the same stable as Time and Magik is a new illustrated adventure game, called Lancelot. Mandarin Software pride themselves on the authenticity of their new blockbuster, declaring it to be the most faithful chronicler of the famous Arthurian legend to date. Since the game was inspired wholly by Mallory's "Morte d'Arthur", there seems little reason to doubt it.

Disillusioned by most modern representations of the saga, the designers of Lancelot decided to

do the job themselves and came up with Mandarin's new adventure which spans the setting up of the

Round Table to the search for the Holy Grail.

The game contains three adventures (in which you play Lancelot), copious text and a liberal sprinkling of graphics. All versions come with a background story and a parchment map of Old England. Priced at £14.95, the PCW version is to be released at the beginning of September. For further information, call 0625 878888. ■

# MANDARIN SOFTWARE

## Gnome Sweet Gnome



Gnome II: Ingrid's back is the satiric sequel to the successful Gnome Ranger game, also from Level 9 Computing. This game is a three-part graphical adventure, and is all about the largely misunderstood Ingrid Bottomlow (grotesque even by gnome standards) who terrorises the inhabitants of Little Moaning on her unexpected return home from wicked witch country (Her parents thought they'd got rid of her once and for all by banishing her there). Costing around £14.95 for the Amstrad PCW, it will be released in mid-October. Details on 0344 487597. ■

## Bespoken Words

A new concept of customised computer software for small businesses and clubs has been launched by Turbo-Tec Computerised Systems, who describe themselves, rather quaintly, as "bespoke software training consultants". What basically is on offer is the company's MeggAbase database/accounting package, which the company claim they can tailor to suit the customer's individual needs.

This would come with customised menus, screens and databases and has what the publicity describes as a "powerful report and graphics generator". The aim is to make every MeggAbase package unique, even down to the manual. For details phone Turbo-Tec (0978 820614). ■

## Taking Stock

Investor, a new package from BB&B software, has been specifically designed for the private investor and makes full use of the Amstrad PCW's ability to provide impartial analysis of fluctuating data.

The program is able to store price data on up to 300 stocks, unit trusts, financial indices and any other kind of investment form you care to mention, for up to five years. More importantly, though, it can identify those stocks with the best and worst of various relevant factors over a period of time of your own choice and thus provide valuable advice on buying and selling.

The three routines used for the purposes of analysis are sustained short-term growth, growth over a selected period (from days to years) and recovery performance. It will judge the performance of all

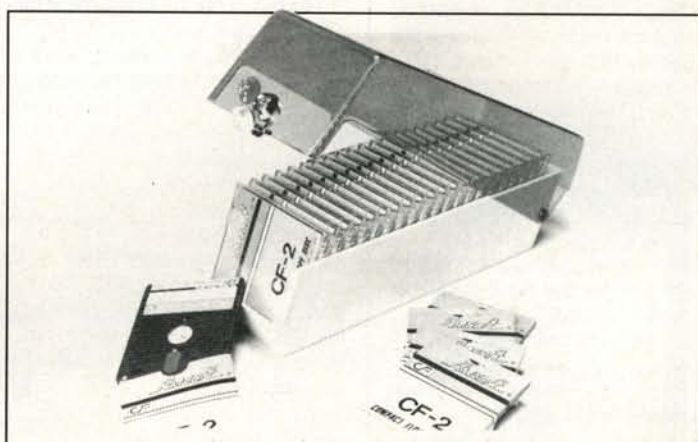
your investment-forms on those criteria. Buying details are all accurately displayed as well as the annual percentage growth of each investment to enable accurate performance comparisons. The program will also provide adequate warning if a stock's performance falls below a selected minimum level.

There is also a whole host of additional features designed to enhance the package. For example, by selecting graphics stock prices can be displayed graphically for more immediate assimilation of information on the part of the user. Data can also be easily amended. Supplied with the program is a library of the most popular stocks and unit trusts. Investor has been developed for use with the PCW 8256 and 8512 and will be available at £29.95. ■

## Keeping a Lid on it

Compumart Ltd will shortly be launching a new three inch disc storage systems. At £11.26 plus VAT, it will hold 21 CF2 discs in their cases and up to 45 uncased. The impact resistant storage box is also supplied with dividers and can

be locked for added security. If that's not incentive enough, you also get a free three inch disc on purchase. At £11.26, it will could prove a godsend for the chronically untidy. Details on 0509 610444. ■



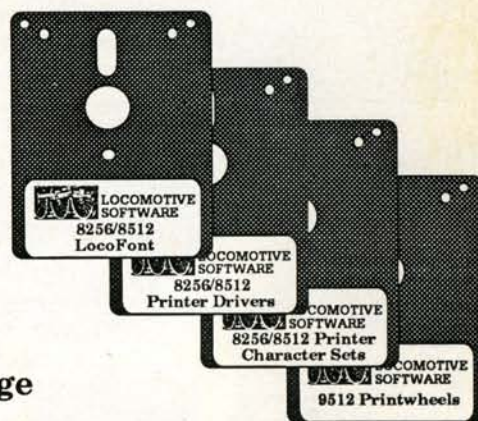




- 
- LocoScript 2**  
The new Word Processor for your  
Amstrad PCW 8256/8512
- with **LocoSpell**  
the integrated Spelling Checker & Corrector
- LOCOMOTIVE  
SOFTWARE**

- Check spelling against a Longmans UK dictionary
- Choose the dictionary which suits your PCW
  - the largest contains over 77,000 words
- Correct most simple typing mistakes automatically
- Add a word counter to LocoScript 2

- **LocoFont**  
for ten distinctive typestyles on the PCW8256/8512 matrix printer
- **Printer Drivers Disc**  
for specialist control of many specific printers
- **Character Sets Disc**  
to personalise how you use your extra printer
- **9512 Printwheels Disc**  
for accents and special characters on the full range of printwheels for the PCW9512

☐ **Charge my Access Card**

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It's nearly a year since the 9512 was launched in a blaze of publicity as the hi-tech typewriter replacement. With its supplied daisywheel printer, LocoScript 2, LocoMail and LocoSpell, it has proved a success both with the critics and with the salesmen.

Of course, it's much more than just a typewriter replacement. Like the 8000s, it's also a powerful general purpose microcomputer. But what can you do – and what can't you do – with your 9512 computer?

**T**he main difference between the 9512 and the 8000s is its daisywheel printer. Dot matrix printers work by making up their characters as a series of dots; the 8000 printers have a 9-pin vertical column of dots which pick out predefined patterns of letters, or graphic patterns sent by a graphics or desktop publishing program.

The 9512 has a daisywheel, just like the old office typewriter. This gives a much better printed result, (as good as an electric typewriter), but of course you're limited to the characters on the wheel. You can't print any graphics or exotic characters such as the Greek letters or mathematical symbols in LocoScript 2 for instance.

You can, however, change the daisywheel on your printer, in the middle of a document if necessary, to get another style. But you only have a limited range of Amstrad daisywheels from your local Amstrad dealer, each £4.30 plus VAT.

The printer takes some other daisywheels but don't expect Amstrad to be too keen on helping you though. There's little you can do other than rummage around your local office stockists. Certainly some Remstar wheels, for example, fit straight into your 9512. Most of them are exactly the same as the Amstrad wheels but a couple are different:

Your dealer can order them from Kardex on 01 405 3434. You won't find any Cyrillic wheels though.

You can use 15 or 12 pitch daisywheels to change the pitch in a document. Both LocoScript and Protext initially work on 10 pitch as the norm, to suit the supplied 10 pitch (or 'pica') wheel.

Changing the daisy for a document is easy – you just pull back the lever on the left of the daisywheel, slip the old one



out and drop the new one in. Pushing the lever back (all the way in, or you get gibberish) resets the printer and your new wheel is engaged.

## Keep it in proportion

If you get a standard daisywheel, you can plunk it in and print away. However, any of the foreign wheels (Greek say), or a non-Amstrad wheel you find which just happens to fit, or a wheel you've had modified, will need a special character set. For example, if the wheel has a ¥ (Yen) sign where the printer 'expects' an &, you'd have to type an & to get a ¥ which would be tedious. Fortunately there is a 'character sets' disc available from Locomotive which has all the character sets for all the known wheels for the printer. On setting up your document or printer to use the appropriate set for the wheel you find that a ¥ on screen prints out as a ¥. And, if you need to improvise your own character set – for example, to suit that non-Amstrad wheel you found in Hong Kong which happens to fit, or to use with your modified wheel with a sign for Korean Won on it – there is a program on the disc to let you do this.

The normal Amstrad daisies need no special effort to use them. The only slight problems you might have are with the Thesis PS wheel. This needs some preparation to get it to work in LocoScript or all you will get is gibberish.

First you have to add the Thesis wheel to the list of 'character styles' that LocoScript knows about. Through [f6] 'Settings' in the disc manager, selecting 'new character style' and give the new name as Thesis and the pitch as PS. Write it to the startup disc under SETTINGS.STD by following the prompts.

Then, if you want a document in proportional spacing, set it up through [f1] 'Document setup'. Press [f6] 'Printing' and choose 'character style' setting the option you want, 'Thesis', with the [+/-] key. When you come to print, you'll be asked if you want to change from the current style (probably Prestige Pica 10) to that intended for the document (Thesis) so take that



## One-Won

You can have daisywheels modified for your own purposes. Suppose, for example, you trade with South Korea regularly and would like a sign for their unit of currency, the Won, on your daisywheel. Keytec (03727 42055) can do this for you (it costs, of course, and you're talking three figures).

Orator 10  
JACKDAWS LOVE MY BIG SPHINX OF QUARTZ

Letter Gothic 10/12 (pitch 10)  
Jackdaws love my big sphinx of quartz  
JACKDAWS LOVE MY BIG SPHINX OF QUARTZ

Letter Gothic 10/12 (pitch 12)  
jackdaws love my big sphinx of quartz  
JACKDAWS LOVE MY BIG SPHINX OF QUARTZ

Script 12  
jackedaws love my big sphinx of quartz  
JACKDAWS LOVE MY BIG SPHINX OF QUARTZ

Thesis PS  
jackdaws love my big sphinx of quartz  
JACKDAWS LOVE MY BIG SPHINX OF QUARTZ

Mini Gothic 15  
Jackdaws love my big sphinx of quartz  
JACKDAWS LOVE MY BIG SPHINX OF QUARTZ

Some other daisywheels fit your 9512 printer  
- here are a few alternatives to the standard  
Armstrad styles on Remstar wheels

CUBIC PICA 10 PRINT WHEEL 008  
The Cubic Pica 10 print wheel is  
and legibility.

REMSTAR MICRON PRINT WHEEL 379  
This is a specimen of a micron print wheel

REMSTAR SYMBOL 10 PRINT WHEEL  
 $\sqrt{2} \theta + [\ ] [ ] = + -$   
 $\gamma \Delta \rightarrow \theta + TE < \nearrow > ( )$   
 $\gamma \delta e \theta \tau u \zeta \downarrow \rightarrow p U$

REMSTAR PRESENTOR 10 PRINT WHEEL  
The Remstar Presentor print wheel

VΣΦΠΛx (≈Ω√+  
ασφπλγ) ≈ω—δ





option. Of course you need a (+PS) command in the document or have it set up in document setup to make proportional spacing be printed.

So, you can't switch between proportional and normal spacing in the middle of a document. If you print text inside a (+PS) command in LocoScript with a non-proportional wheel it'll come

out in proportional spacing but because the characters aren't suitable, they'll look funny.

### Where there's a wheel

In LocoScript, there's no command to stop the daisywheel at a certain point in a document. What you must do is press the [PTR] key on the line before the change; the 9512 finishes the line and then stops. You change the wheel, press [EXIT] and the printing continues. It is possible to print one word of a line in a different style, but this involves overprinting two lines on line-spacing zero, one consisting of just that word by itself in the correct position on the line, and the other the rest of the line minus the word.

You therefore can't use proportional spacing or they won't align properly. Protext is similar; a >wt stored command followed by a space and a message will stop the printing and display the message ('insert 17 pitch daisy now', for example). Again selecting line spacing zero and overprinting two lines would enable you to change halfway through a line. Mini Office's [ALT]Z command will stop the printer anywhere on a line, making daisy changes easier.

The above procedure applies for changing ribbons (to a different colour) as well as daisywheels.

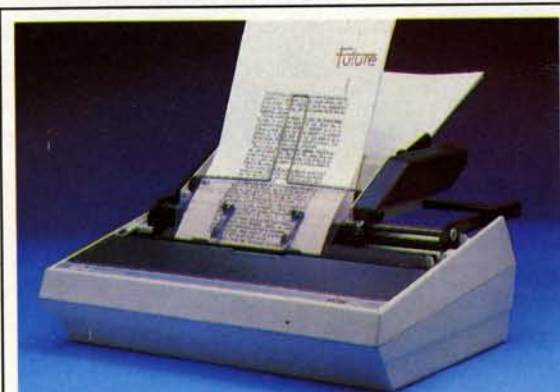
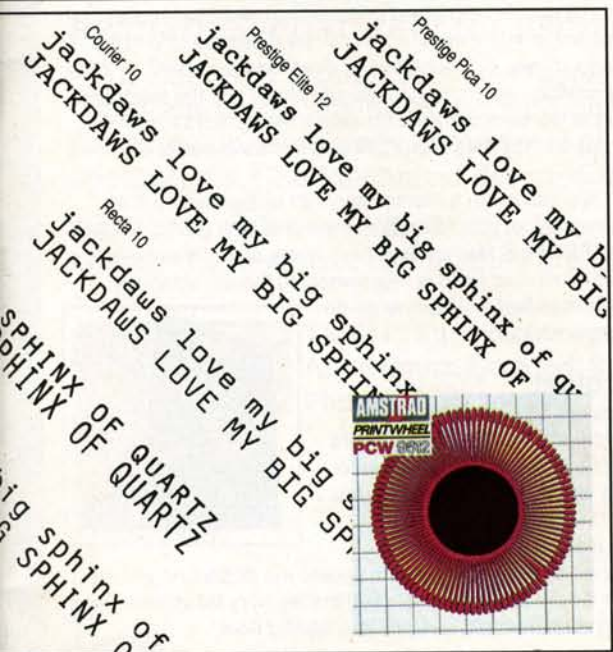
### The software situation

So we know the 9512 has a different printer to an 8000 - but what's the difference inside? Amstrad have always said that any normal CP/M program will work on both machines. So why did your Scrabble disc say 'THIS DISC IS AN ILLEGAL COPY' when you put it in your



# THE 9512 FILE

Things you should know about your PCW 9512 (and a few you shouldn't)



RSC's automatic single sheet feeder

### The single life

For a long business report, or a mail shot involving letters to hundreds of customers, you will want to make the best of the 9512's daisy print and print on single A4 sheets, rather than continuous paper, for the most impressive result. RSC do a sheet feeder which will feed A4 sheets in a continuous stream into your printer; the price is under negotiation but may be around £165. Details from them on 0923 243301.



## Foreign legion

Foreign languages are pretty well catered for. Sternstadt (01 991 1112) who distribute for Amstrad can give you availability details of the following languages, which come in the styles given in brackets.

Swiss French (whole Amstrad range); Danish (whole range); French Belgian, German (all but Orator 10); Greek (Courier 10, Recta 10, Mini Gothic 15, Thesis PS); Italian (Prestige Pica, Orator, Letter Gothic 12, Script 12, Thesis PS); Netherlands (all); Norwegian (all).

Portuguese (Prestige Pica 10 & Elite 12, Script 12, Mini Gothic 15, Thesis PS); Spanish (all); Swedish, Finnish (all but Letter Gothic 10/12); Turkish (Prestige Pica 10, Recta 10,

Letter Gothic 10/12, Script 12, Mini Gothic, Thesis PS).

If you really need a Cyrillic daisywheel, you'll have to get a Qume compatible daisywheel printer and then get a Cyrillic daisywheel from Datashop International on 0734 502662. You can't use LocoScript 2 directly though – you'll have to buy Locomotive's 'Printer Drivers and Character Sets' disc from them on 0306 740606. This has a simple program CHARSET which allows you to define a 'printer driver' for your Qume printer. This driver will interpret LocoScript's Cyrillic characters in the correct way so that when you type a *rtul* on screen, it will print out as a *rtul* on your Qume.

### Same but different

Some 9512s could read the early versions of Scrabble, some couldn't! Copy protection systems often stretch the drive to the limit of its physical performance, past accepted norms. While all 9512s are built to be capable of more than they need to do, no two will be made exactly the same and some will be further past the expected tolerance levels than others. So some machines could cope, some couldn't – they're still perfectly good 9512s.

### The humble B

Adding a B drive to your 9512 is reasonably easy to do yourself. The internal connections are already there waiting to be hooked up; all you do is cut out the front panel, remove the back, slot the drive in, plug it in and away you go. The May 88 issue of 8000 Plus (issue 20) ran a feature on how to do this. Contact either Alfa (01 390 2588) or Silicon City (0209 891141) to order. Price is about £120.

9512? Why doesn't that BASIC poke you tried in that 8000 Plus listing to echo all screen output on the printer work?

The reasons are complicated and very technical, but all come down to hardware differences. Many games have copy protection (Scrabble, for instance) which work by putting information on the disc in a crazy way which DISCKIT can't understand. In getting the 8000 drive to read the disc, it makes assumptions about how accurately the thing will respond to usually 'illegal' commands which don't hold for the 9512's drive. So, the 9512 can't read the disc.

Similarly for the BASIC command `POKE 18527, 90` – a dubious thing to do on an 8000 which just happens to send all screen output to the printer as well. On the 9512 the same assumptions about how the printer reacts to this 'illegal' move don't hold.

Any normal BASIC program without 'clever' POKES will work fine on both machines. Use the commands in the BASIC manual and you'll have no problem. Similarly any normal program in PASCAL, C, machine code or whatever should run on both, providing you stick to 'sensible' things like BDOS calls and don't try to go too low-level. Clever tricks are out – unless you *really* know what you're doing and are the sort of person that can write machine code programs to switch between CP/M and LocoScript at the touch of a button.

Generally any CP/M program (which means virtually everything) which works on an 8000 will work OK on a 9512, given the limitations of your dot matrix printer. The only things which might not are DTP, Graphics packages and Organisers – see below. Making a working copy with 8000COPY on your CP/M disc gives you 720k of space to play with, as opposed to 180k on an 8000 A drive, meaning you don't have to keep swopping discs – you'll probably have room for some data files too.

So, having said that, what's the specific situation for that piece of software you're thinking of buying? Here's a guide

## Moving words

The transfer of data between an 8000 and a 9512 is pretty straightforward. The drive in a 9512 is, to all intents and purposes, the same as a B drive in a 8512. You can swop discs between these drives – for example you can work on a LocoScript 2 document on your 9512 at work and bring it home to polish up on your 8512, whatever version of LocoScript 2 you have. If you still have LocoScript 1 you'll have to buy Loco 2 – you can't run the 9512 version of LocoScript 2 on your 8000 machine, unfortunately. To copy files to your

8512's A drive from your 9512, use the B drive as a stepping stone.

If you only have an 8256 you may be in trouble. The 9512 will read discs from an 8256 (or an 8512's A drive) but can't write to them. So, you can copy from an 8256 to a 9512 but not vice-versa.

The utility 8000COPY.COM on the CP/M disc will copy files from an 8000 to a 9512 disc for you. Switch on, insert your CP/M disc, type 8000COPY [RETURN] and follow the prompts.

to some of the more popular packages.

### SuperCalc 2

No problem on the 9512.

Everything works the same. You can make a startup disc from your master disc with enough room for all the program, help and .OVL files, data transfer utilities too (SDI etc), and still have plenty of room left for data. The only difference is on printout – and here is another occasion when having a 9512 makes things easier than on an 8000!

To change the printing style (usually draft 10 pitch) in SuperCalc 2 you have to send escape codes to the printer before printing (you select 'S' where you'd normally press 'P' to print and then enter your codes). This is a fiddle on an 8000 – you'd type 27, 112, 1 to set proportional spacing, for example, hardly the easiest way to have to do it.

But on the 9512 you can change things on the printer from the printer status line. At any time just press [PTR] then the down cursor twice to move into the third line of the status area. Here you can, for example, move the cursor over the 'pitch' section and change the pitch to whatever you like – 17, perhaps, for condensed print. This is a popular choice as spreadsheets often get too wide to fit on one sheet of paper in 10 pitch, and of course on the 9512 you can fit up to A3 paper in the printer. It's best if you fit a small daisywheel such as Mini Gothic or the result will be a bit cramped!



### Mini Office

Database say the latest version (1.07) is completely compatible with the 9512 (to the limits of the daisywheel printer). If your version is earlier than 1.07 send your discs back to Database for a free upgrade. You can use the [PTR] key to change the printing pitch, paper type (continuous/single sheet) etc. or set them from the Mini Office word processor menus. A 'pause' command can be put in a document enabling you to change the daisywheel to another style for one line or even one word.

To get printed output from the graphics module, or from the spreadsheet if you want sideways printing, or if you want to print double height and reversed-out (white-on-black) characters in the word processor, you'll need a (9 pin) dot matrix printer. Any such printer described as 'Epson compatible' will work fine; you just plug it into the expansion port at the back of the 9512, select 'Matrix' from the printer status line (by pressing [PTR] and the down cursor followed by [-]).

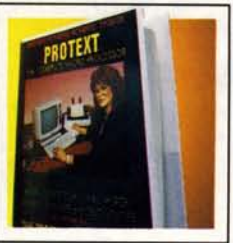
You can make a startup disc with all the files from the three sides of your Mini Office disc plus your .EMS, SUBMIT and PROFILE files and still have some room for data files. This eliminates tedious disc swopping though obviously large data files will have to go on a separate disc.



### Protext

Versions of Protext released before the 9512 appeared might still be in the shops. These work fine on the 9512 except that you can't update the dictionary.

New versions (2.20 and higher) allow you not only to update the dictionary, you can use it from any drive (including the memory for speed). Free upgrades from old versions can be had from Arnor.









## FEATURE

### Can of ribbon worms

The 9512 carbon ribbons are one-trip and get used up very quickly, ie. very expensively. You can get fabric ribbons as well; being endless loops they keep going for ever (though your print quality gets fainter and fainter of course). Fabric ribbons can be reinked too extending their life. Carbon ribbons give a slightly sharper impression though. You can find them both advertised throughout 8000 Plus.

### Two-too

You must have both your 9512 printer and your dot matrix plugged in at the same time when you print out on the dot matrix. If the 9512 printer isn't plugged in, funny things can happen like your PCW refusing to believe the dot matrix ever has any paper.

### No connection

You can't use the printer from your 8256 or 8512 on a 9512. There's no way to connect it up.

No problems with startup discs – you can get all the Protext files and the dictionary on one disc with loads of room to spare for template files etc.

There is a 'pause' command enabling you to change the daisywheel for a line (not in the middle of a line though).

### WordStar 4

Released specifically for the 9512, but prints out a £ sign as 1, a bit restricting for business use! It has a 'pause' control to change the daisywheel in the middle of a document but not the middle of a line.

### DTP packages

DTP packages work fine on screen on a 9512 but you need a dot matrix printer to print anything out. Again, a 9-pin Epson compatible is what you need, and it just plugs into the 'parallel' interface at the back of your 9512. You'll need a suitable connecting cable – your printer dealer will be able to supply the right one.

With Stop Press, Fleet Street Editor and Newsdesk International, plug in your printer, start up CP/M and type `DEVICE LST:=PAR [RETURN]`. This tells your PCW that you're sending printed output to the parallel port, which is currently hooked to your dot matrix printer. Then you run the package and print as normal. Problems can arise, usually due to bad connections.

With the Desktop Publisher, you must have a 9512 compatible version. The 'DEVICE' command is overridden and to send output to the parallel port you must choose 'PARALLEL' from the 'Print' menu within the Desktop Publisher. This option only occurs on 9512 versions of the program.

### Graphics and Desktops

Signwriter, TasSign, Electric Studio's Art and MasterPaint work in conjunction with an Epson compatible dot matrix. DR Draw and DR Graph won't work on a 9512. MasterScan

won't fit on the 9512 printer so won't work.

Among desktop organisers, Write Hand Man and Companion won't work, but Jeeves (Kempston's desktop) and the AMX Mouse and Desktop work OK.

### Using a dot matrix printer

For desktop publishing and graphics packages, a dot matrix printer, or DMP, is a must. You can pick up a reasonable model for around two hundred pounds upwards; make sure you get an 'Epson compatible' one. Then you'll need a connecting cable. You'll probably find that even cheap dot matrix printers perform faster than the one supplied with the 8000s, very convenient if you're printing out desktop published pages!

But even if you only use word processors or databases it may be an investment worth considering. It's costly to print out drafts of reports or long spreadsheets on the daisywheel, using up valuable ribbon. Also, a DMP can be much faster if you're printing out in draft mode, which will go about four times faster than your daisywheel can print.

However, you can't get all those fancy characters and Greek letters and mathematical symbols on your DMP. They only work on the 8000 dot matrix. The best you can do is get bold, underline, italic and different pitch sizes.

The good news for LocoScripters is that Locomotive supply 'printer drivers' for all known printers – ie. if you have a dot matrix printer, you will be able to use it with LocoScript using the printer driver to 'translate' LocoScript into commands the printer understands, and get bold, italic and underline, and character sizes to the availability of your printer. If a suitable printer driver isn't on the supplied LocoScript disc you

can buy a disc from Locomotive (0306 740606) which will certainly have one. Locomotive are very proud of their printer support and believe, probably with justification, that they provide the widest range of printer support for any word processor in the world!



## Games people play

Here's a list of a few more popular games and whether or not they'll work on a 9512. No 9512 versions of the non-working games below are planned. You won't be able to get any graphics printed from any of the games (printouts of chess or scrabble games for example) which let you do this on an 8000 on the 9512 printer.

Academy – no  
Backgammon – yes  
Batman – no  
Blackstar – no  
Boulder – no  
Brian Clough's Football Fortunes – yes  
Bridge Player 2000 – yes  
Clock Chess 88 – yes

Colossus Bridge – yes  
Colossus Chess – yes  
Cyrus II Chess – yes  
Draughts – yes  
Fairlight – yes  
Gnome Ranger – yes  
Guild of Thieves – no  
Head Coach – yes  
Head over Heels – no  
Hitch Hiker's Guide to the Galaxy – yes\*  
Jewels of Darkness – yes  
Jinxster – no  
Knight Orc – yes  
Leather Goddesses of Phobos – yes\*  
Lurking Horror – yes\*  
Matchday II – no

Mindfighter – no  
Pawn – no  
Scrabble – yes  
Silicon Dreams – yes  
Sorcerer – yes\*  
Starglider – no  
Stationfall – yes\*  
Steve Davis Snooker – yes  
Strike Force Harrier – no  
Tau Ceti – no  
Tetris – no  
Tomahawk – no

\*check box: if it specifies all PCWs, will work on 9512; if specifies 8256 and 8512 only, will not



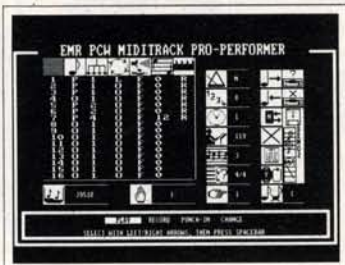
## EMR PRO PERFORMER

### The complete MUSIC PROCESSOR for your PCW!

PRO PERFORMER turns your PCW into a powerful and creative recording studio for MIDI instruments.

Established since 1982, EMR have put computer-aided music making into countless homes, schools and studios - and now the most versatile system is on the PCW, giving anyone able to play a melody on the keyboard a chance to become a better musician using PRO PERFORMER.

PRO PERFORMER has a new type of recording process that gives not just one 16-track recorder, but 99 in memory at once! Using the quick arrangement facility, each 16-track "song" can become part of the most complex piece in performance. Its single screen with easy-to-remember icons opens up a tremendous variety of music control using a few keys, for recording and playback as fast or slow as you like, including step by step entry (with any size chords). A host of extra pro features include "system exclusive" for sound dumps, tape "sync" and midi thru. Works with any midi instrument.



"Easy to use and has a wide variety of features that will make it useful to pop or classical musicians."

"EMR's package does the job well, and for all PCW-owning MIDI musicians, this is a must." 8000 PLUS Magazine August '88 (who voted it 5 out of 5).

Get your free PCW MUSIC PACK from EMR now, giving full details of the PRO PERFORMER, plus discount voucher for £6 worth of midi cables.

**PCW PRO PERFORMER SOFTWARE £59.95**  
**PCW MIDI INTERFACE £89.90.**

Prices include VAT. Add £2 P&P for UK. Access & Visa accepted.

**ELECTROMUSIC RESEARCH (EMR) LTD,**  
**14 Mount Close, Wickford, Essex SS11 8GH.**  
**Tel: 0702 335747. Tx: 99473 Inter G. Fax: 0702 430405.**

## AMSTRAD ACCOUNTS

### PCW 8256 - PCW 8512 - PCW 9512

This system is no nonsense, purpose designed, traditional style double entry book-keeping, capable of operating at any level from a simple cash account right up to a fully sophisticated feature packed system to handle up to 500 Nominal ledger accounts plus 999 Sales and 999 Purchase ledger accounts.

### BOOK-KEEPING and ACCOUNTS

by A.G. Clough F.C.A.  
PRICE (including manual):

Version 1 book-keeping only..... £57.50  
Version 2 As V.1 plus intergrated invoicing..... £69.00  
Version 3 As V.1 plus invoicing & stock control .....£80.50

Write or phone for detailed information or, as we strongly recommend,

### SEND FOR A COMPLETE DEMONSTRATION PACKAGE

**Discs Only With Manual(s)**

Version 1 ..... £5.00 ..... £10.00  
Version 2 ..... £7.00 ..... £14.00  
Version 3 ..... £8.00 ..... £16.00

This package, on two discs, programs and data, contains the whole unabridged system ready to use, less only the facility to set up the accounts headings. We have done this already, setting up more than 200 example accounts with representative prime entries for a typical month, ready to put to experimental use immediately after copying the disc.

### EXPERIMENT WITHIN MINUTES.

Having read only the simple single sheet instructions, you can, for example, view any ledger in normal or historic mode, sequentially or by random account, produce statements or payment advices, practise prime entries, study a credit control analysis, read or print a Trial Balance and even do a pseudo profit or loss calculation for the period.

To properly understand the invoicing and stock control, and experiment with your own invoices, you will need the manual.

Follow up service available.

ALSO AVAILABLE: Independent invoicing .....£19.50  
Independent invoicing and stock control .....£29.00  
CLUB ACCOUNTS .....£69.00  
GOLF HANDICAP - Records and revisions .....£29.00

Club Accounts offers full book-keeping facilities including subscription ledger and bar takings control.

The handicap records system is supplied free with Club Accounts. It implements the latest changes in the Standard Scratch Score and Handicapping system 1983

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**Ramsey, Isle of Man**  
**Telephone (0624) 813071**

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☐ PCW8256 or 8512

☐ PCW9512



Maybe, having seen last month's introduction to Mini Office's word processor, you've been impressed with its speed over LocoScript. But this is just one of its features – there are dozens more. Here's a guide to some of Mini Office's more unexpected and individual functions – ones you *won't* find in LocoScript...

```

Drive: A      File: ANYTHING.DOC      INSERT      Size: 1 K      9 lines      page
Page:         Line: 8      Column: 23      Marker: 2      Free: 351 K      6131 lines      page
f1:Save      f2:Save Block      f3:Page Mode      f4:Wide Mode      f5:Compact      f6:Remove Codes      f7:Merge      f8:Clear EX
-----C-----T-----T-----T-----T-----T-----T-----T----->...
START
  e
  [14
  C-----T-----T-----T-----T-----T-----T-----T----->...
  12
  C-----T-----T-----T-----T-----T-----T----->...
  214
  C-----T-----T-----T-----T-----T-----T----->...
  312

```

```

.....C-----T-----T-----T-----T----->.....
Q1SMITH:                TI'm taking my dog to the vet's to be put
                           down tomorrow.
Q1JONES:                 TYou're having your dog put down? Why - how
                           does he smell?
Q1SMITH:                 TTerrible!

```



# Mini Office PROFESSIONAL

MINI OFFICE

Word processor

Comms

Spreadsheet

Graphics

Database

## Bug blatter

If you use the word processor regularly (ie. more than once) you'll have noticed a big feature of Mini Office not found in LocoScript, viz. crashing. If the machine doesn't actually crash (stop working) you often get error messages like 'A problem has occurred at 4C72 while handling the document in memory' which doesn't help you much.

A typical cause of this is putting a code to, say, open a header in the middle of a long document. Mini Office sees only the 'open header' code, thinks the rest of the document is included in the header and goes out of its mind trying to work out what to do with a 50 page long header, locking everything up, and necessitating a switch off and restart.

The remedy is to put the 'close header' code in first, then the 'open header' code, then type in your header. This applies to any other open-close pair: put 'finish integrity block' markers in before 'open block', turn off condensed printing before you turn it on, etc. etc. This last prevents Mini Office reformatting the rest of your document as if it were in condensed print and then re-formatting it when you turn off condensed print.

Most of the early bugs have been fixed but some may still lurk - see 'Search and Replace'. The latest bug news and latest version of Mini Office can be had from Database (0625 878888). The five - program package costs £29.95.

putting [ALT]>. A [ALT]< reverts to left justification.

**Reversed printing:** You can print out reversed, ie. white-on-black, by a [SHIFT][ALT]R command. [ALT]R turns it off. This shows up on screen as reverse video in split screen 'page' mode ([f3]). It prints out reverse but only in draft quality.

**Double height letters:** in [SHIFT][ALT]T turns on double height printing. This shows up on screen in page mode, but again only prints out in draft quality. Any line with double height letters on it automatically spaces out from the one above. [ALT]T turns it off.

[SHIFT][ALT]U as the replacement string you would change all bold-on commands to underline-on. [RETURN]s are entered by pressing [EOL]. Unfortunately there seems to be a bug in that you can't replace something by nothing; if you try to replace all [SHIFT][ALT]Us by nothing to strip out all the underlinings, Mini Office replaces each one with a space.

**Stopping the printer:** Putting an [ALT]Z code in a document halts the printer anywhere on a line. Pressing any key make it resume printing. By putting on before and after a word you can get the printer to stop before and after it to, for example, change a daisywheel or printer ribbon for that word, picking it out in a different typeface or colour.

## A Roman knows

One of the more curious features of Mini Office is its ability to number pages in Roman numerals for your prefaces and appendices. Take 'Print' from the main menu, then 'Set up printer', then 'Default settings', then move over 'Page no. type' and press [ENTER] to select either lower or upper case Roman numbering.

## Small Ruminant News

The newsletter of the  
International Goat Association

September 1988

An example of double-height double-width lettering at the top and reversed printing at the bottom. Both come out in draft only so it's best to use bold on them as well

however, a vicuna<sup>1</sup> would not sh  
goat milk fat content (Hadjipan

<sup>1</sup>other small ruminants behave similarly

A [SHIFT][ALT]Z before the footnote stops the printer and enables you to change to a 15 pitch daisywheel (of course you need to change to condensed printing in the document with [SHIFT][ALT]C)

**Remarks:** Just like BASIC listings, you can insert remarks into a document which don't show on the printout or in 'page' mode. [ALT] ends, and [ALT] ( begins, a remark. They show up as dim brackets and remarks always occupy a line to themselves. So, in the middle of a letter to a debtor, you might write *We look forward to hearing from you.* (Chase them up by September 25th - they are usually late paying) Yours sincerely...

**Search and Replace:** Works from the main menu. Unlike LocoScript, you can search for and replace control codes - italics, bolds, line space commands and so on. Thus by entering [SHIFT][ALT]B as the search string and

**Printing anything you like:** You can send codes directly to the printer using [SHIFT][ALT]X followed by numbers and commas. All numbers and commas are entered with [ALT] to make them appear dim on screen. Printer codes can be found on page 126-133 of the CP/M manual (Appendix II of the 9512 manual).

For example, [SHIFT][ALT]X followed by a dim 27,112,1 would select proportional spacing (the code for this being ESC p 1 and p having an ASCII code of 112); followed by a dim 97,98,99 would print the letters a,b,c, these being the

characters with ASCII codes 97, 98 and 99. You can use this to insert strange symbols or accents (such as é, with the code 225).

If you have an 8000 you can print graphics from within a Mini Office document - see the 'Graphics' article in this issue on pages 35 and 36. ■

## What's the point

Another page numbering option is 'decimal pages' where pages are numbered 2.1, 2.2, 2.3...2.10, 2.11 etc. You might use this for sections of a report, say. Select 'decimal' in the same way as you'd select 'Roman' numbering; set the first page number in 'page number start' from the same menu.

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Cardiff/South Wales	34.6	46.9	49.7	66.2
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Using 'page mode' ([f3]) to show how your layout will print out



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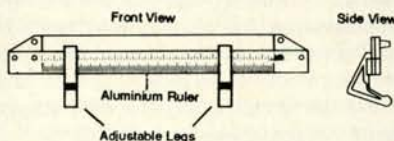
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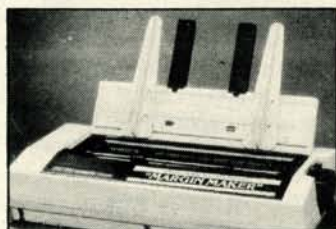
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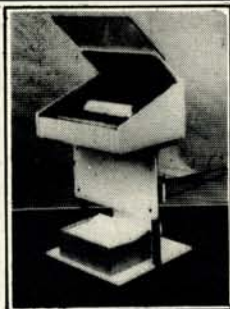
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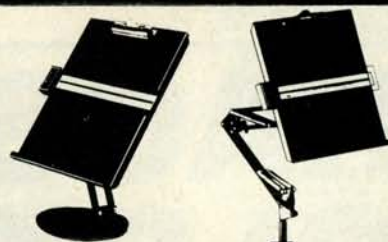
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# RAGS TO GLITCHES

Haven't a thing to wear? Lynne Beshir needed a PCW to catalogue her clothes...



In March 1986 I was appointed to record on disc a unique and valuable costume collection owned by the National Trust. This collection ranged from the sixteenth century to the nineteen thirties, and came from as far afield as South America, Japan and Africa. It also covered everything from priests' vestments to Marie Antoinette's garters.

It was to be my task to check, for clarity and accuracy, descriptions of over 2200 of these garments, and to make a permanent record of them, editing and proofreading every word in the process. All this information was to be processed via the Amstrad PCW. The resulting catalogue would replace the existing text which had been handwritten by various costume experts over a number of years on an assortment of card and paper.

Some garments were extremely fragile; any disturbance

could have resulted in irreparable damage, even disintegration. The project was undertaken to provide students of costume with a ready reference to every detail of the collection, enabling them to build up an accurate picture of the garments without having to handle them.

## Picking up the thread

I didn't realise the scale of the task as I was introduced to the shiny new PCW8256, for I had never used a word processor. My knowledge of computers was limited to toying with my son's Sinclair Spectrum. Personal computing was new to the Trust as well, so there was nobody to guide me on my way. I was given three weeks to play with the machine before beginning the project in earnest. As it happened this turned out to be absolutely necessary.

For a few days I happily turned out sample letters until a member of the staff realised that I was underemployed and gave me my first piece of 'real' work, a document of several pages.

I dutifully entered the text, corrected it, then chose 'Save and Print'. The next few hours were spent trying to find why the machine refused to print more than the first page of the precious document, while its author became increasingly suspicious that I had somehow sabotaged her work. Being entirely ignorant of the difference between continuous and single sheet stationery, my solution was to enter each page as a separate document and print it out that way.

After that the Trust wisely sent me on a one day training course. I returned with a manual under one arm and my head stuffed full of information about templates, tabulation, proportional spacing and the like. This one day cram proved itself essential to the success of the project, as I had found the official manual to be no help at all in the early stages, although it became a handy reference guide later on.

My first task was to set up a template. The information about each garment had to go on a specially printed form, with details - catalogue number, category, garment, date of garment, book reference and photographic details - on boxes at the top and bottom. I did this when my knowledge was minimal, so I was quite proud of my achievement.

Each document was on average only a page long, so LocoScript's slowness was not a problem. I entered the details of each garment and printed it out immediately. The slowness only became evident when I came to do the cross-referenced index. This was entered as one continuous document and it took two whole working days to print out! I also found that contrary to popular belief, I couldn't leave the machine to do its job as the paper was inclined to catch as soon as my back was turned. The scrolling is infuriatingly slow as well, and inconvenient when you are searching through the index for the just the right piece of information when you can't remember exactly how it was worded, so can't use FIND!

## Ironing out problems

Although the manual was useless to me as a beginner, when I had mastered the basics I used it to learn how to set up headers and footers, deal with page numbering, cut and paste and saving and inserting blocks. In addition I learned the art of saving keystrokes by using the [+] and [-] keys, none of which were covered in the basic training course.

However I, like many other enthusiasts, learned the hard way that to prevent a 'disc full' catastrophe it is essential to think ahead, either saving at regular intervals to minimise the risk, or to break up long documents into smaller ones so a full disc situation could be remedied by the temporary moving of another document into M drive while the current one is saved. It was also a long time before I realised that an accidentally erased text could be recovered from limbo.

Later on I worked for a while in the general office, where yet another Amstrad had been installed (an 8512) and I

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SNOWSHILL COSTUME COLLECTION						
Catalogue No.	Sex	Pieces	Category	Date		
57	F	1	Jacket	1735-40		
<b>Description</b>						
<b>Fabric</b>	Begonia pink silk brocade, with bold design of architectural fragments and flowers in multicolour silk and silver thread. Point rentré.					
<b>Lining</b>	Bodice lined pale blue silk. Sleeves lined unbleached linen. Cuff, bodice front and skirt interlined coarse felted fabric.					
<b>Cut</b>	Close fitting bodice. 'V' neckline to waist. Low, pointed waistline front and back. Back in 2 panels, 2 whalebones centre-back. Short, flared skirt - with centre-back vent. Box pleated side back, fan pleated at side. 2 false pocket flaps. Set-in sleeves with 3 darts at head, wide, elbow length. Large stiff winged cuffs.					
<b>Trimings</b>	Self-covered, domed button above fan pleats on skirt.					
<b>Fastenings</b>	3 self-covered buttons lower centre-front - for laces to fasten over stomacher. Remains of matching silk laces round top button.					
<b>Comment</b>	Possibly French or Italian.					
<b>Cross References</b>						
Cf Janet Arnold 'Patterns of Fashion' P						
B/W Photo	Negative No.	Conservation Sheet	Research Sheet	Charles Wade Cat. No.	Exhibited	Catalogues L B



## CASE IN POINT

### Wot no database?

A database program is the usual choice for cataloguing a collection. This would enable a researcher to get details of, for example, all French garments with begonia pink silk brocade, or all 17th century silk items at a stroke. However, text-oriented data items like this can go pretty well in normal LocoScript documents, and if the final printed version is the main concern, as here, LocoScript is quite adequate. And with the amount of information, a 20k hard disc might be better to store it all in one place instead of 96 floppies!

### Glitch note

A glitch is similar to a bug – a surprise feature of a program which isn't wanted, such as unexpectedly resetting the machine every time you press the space bar.

learned about non-processing software. I was the first to use the newly purchased SuperCalc 2 for computerising the daily accounts of the various Trust houses. The Trust were planning to install an Amstrad in each property, so that the administrators could enter the weekly takings themselves and send the results to the Regional Office. As they were not expected to be very conversant with computers, the spreadsheet had to be as simple to use as possible. I had great fun setting up the test programs, but I imagine they were rather dull to use. Accounts never did inspire me. I now use SuperCalc 2 for my own accounts, for which it proves quite adequate, unlike the income it serves.

My successes brought me the reputation of being the 'computer expert', and I was introduced as such to any passing visitor. Things move fast in the computer world, including, it seems, one's reputation.

In all, the costume project took fifteen months, some items also being drawn and photographed. The Trust have now a catalogue which is thought to be the only one of its kind in existence, all done on an Amstrad. It has impressed the custodians of other costume collections, who are considering similar projects.

### A lot of material

I estimate that there are around half a million words in the catalogue, on 4500 sheets of A4 paper. It is recorded on 96 discs, there being two copies of each, stored in different places for safety. The detailed index and cross reference covers another 155 pages, a further 30,000 words. All this was done with LocoScript. Had I known about indexing software then I would probably have used this from the beginning. As it was I found out about them too late; the index was written out by hand and entered in the usual way.

In these months the Amstrad functioned without a breakdown, the only problem being that the letters wore off some of the keys. The best solution I think is one of those see through keyboard covers. Another problem I encountered was wear and tear and me rather than the machine! Long days at the keyboard inevitably caused me eyestrain and headaches at the beginning. The simpler remedy was a screen filter which reduced the glare considerably. I do wonder why Amstrad chose to market the PCW with a green screen, when blue is a more restful colour on the eyes. Amstrad green has a high percentage of yellow in it, and yellow stimulates and irritates the nerves.

### Into the fray

My enthusiasm for Amstrad was such that I actually took the step of purchasing my own machine. I can now indulge in my love of writing with LocoScript, AnsibleIndex and AnsibleCheck – a word counter for LocoScript. I have nothing but praise for Ansible Information's software; their programs are simple to use and the instructions easy to understand. It is even unnecessary to boot the system with CP/M first as a startup routine is incorporated into the programs. All you have to do is put the disk in. I actually learned the art of saving keystrokes by reading their instruction manual.

Ansible Information include a third program in their package – Grease. It is designed to help writers pinpoint the excessive use of certain words in their work.

For example, when I analysed the first draft of this article, of the fifteen hundred words counted about six hundred were 'unique', with 'the' appearing highest on the list, having been used one hundred times – but then it is the most common word in the language. Equally, there was nothing untoward about the fact that the word 'Amstrad' appeared eleven times. Had I used the word 'perversion' eight times (which I didn't) something would have been wrong. Grease was designed to improve the style of the writers work, but I suspect that it could be come addictive.

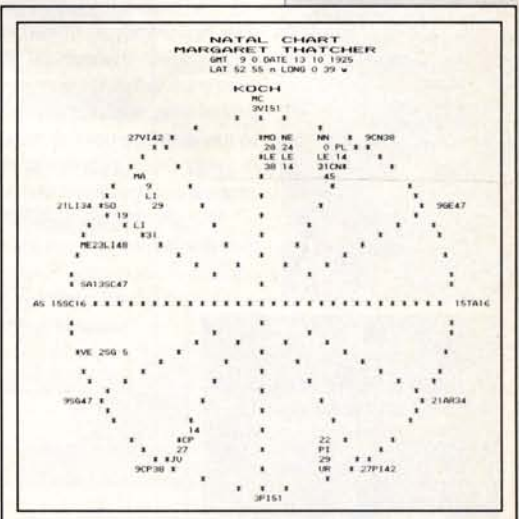
My interest in Astrology has been aided by Astrocalc, the astrology program which takes the toil out of statistical research. However, you need to treat charts for dates before 1860 with caution.

Astrocalc creates charts by calculation rather than by using an ephemeris (astrological jargon for a list of daily planetary positions) and the very nature of these calculations involves a small error which is unnoticeable for the twentieth century but the further back you go the greater the error becomes. The outer planets Uranus, Neptune and Pluto suffer less because of their slow movement, but with Mercury, Mars and Venus and especially the Moon the error can be several degrees, or even a sign depending on the version you use. I would assume that the reason is available memory space; to create a program which includes a 2,000 year ephemeris would be too large even for the 8512's 512k memory. In any case Astrocalc is more than adequate for the purposes of most users, up to and including professional astrologers, the bulk of whose work concerns clients who were born after 1860. It's just unfortunate that my research spans several centuries!

### All sewn up

My fascination with desktop publishing and Fleet Street Editor Plus has opened me to whole new world, that of newsletter publishing. My use of this amazing new concept has so far been confined to producing posters, letterhead and some very tasteful forms, I have an astrological newsletter in the pipeline though, which will involve learning about Fleet Street Editor as I go along.

What next? For one, I have put together my new-found knowledge and set myself up in a word processing and writing service. My next project I think will be to invest in a Video Digitiser and to build up a file of my favourite TV and film villains – any nominations? ■



### NATAL CHART FOR CHARLES BABBAGE

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ME CP 22 22 10 C E	MO conj+ ME 0	MO sxt VE 4	MO tri+ MA 5	MO squ+ JU 6							
VE SC 17 58 7 F W	MO squ+ NE 8	MO 55x PL 2	ME sxt VE 4	ME tri+ MA 4							
MA VI 26 45 6 M E	ME squ+ JU 5	ME squ+ NE 7	VE biq+ SA 0	VE squ+ UR 1							
JU LI 27 35 7 C A	VE squ+ PL 2	VE biq AS 0	VE 55q MC 2	MA 55x+ JU 1							
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UR LE 18 32r 5 F F	SA tri+ UR 6	SA conj AS 1	SA squ MC 8	SA opp NN 4							
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PF AR 29 4											
EP AR 5 21											

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# BOOK LOOK

For all Mini Office owners confused by the manual – at last! The book you've been waiting for...

## But seriously, folks

8000 Plus has been running a Mini Office tutorial series in the last few months. Covered so far has been the database, the graphics module, the word processor (the final part of which is in this month's issue) and mail merging. During the next few months the series continues with the spreadsheet and the communications package is available from Database Software (0625 878888) at £29.95, or from our Special Offers pages.

## ALL IN ONE BUSINESS COMPUTING: AMSTRAD PCW AND MINI OFFICE PROFESSIONAL

by John M Hughes

£11.95 • Sigma Press (0625 531035)

Mini Office is simply one of the best and most powerful all-purpose packages available for the PCW. It has a word processor, database, spreadsheet, graphics and communications packages, any one of which would be well worth the £29.95 overall price alone.

The problem (apart from a few rather serious initial bugs, now apparently all ironed out in the latest version, 1.07) has always been the manual. While fine as a set of quick reference notes for someone familiar with the ideas of word processing, spreadsheeting, databasing etc., it was no use to the average user. It also left out significant details. John Hughes' book sets out to put right all the shortcomings of the manual and get even the novice working straight away.

The great thing about "All in One Business Computing" is that the author has not attempted to take any shortcuts, stylistic or technical. Everything is lucidly and simply

explained with (more amazingly still) absolutely no recourse to that annoying affliction that most technical writers suffer from – using long strings of unrelieved jargon.

Neither does the book assume any prior personal computing experience in its reader. Before

navigating the murky waters of Mini Office proper, Hughes devotes his first chapter to the ins and outs of the CP/M operating system, an ideal introduction for all those who haven't as yet ventured any further than LocoScript.

Routine operations like copying, formatting, making backups and adding new printers are explained in a coherent and confidence-building way as are the most important of CP/M's

various utilities.

The book seems to reach the perfect compromise; it neither talks down to the reader nor does it gloss over important details.

## Use it don't lose it

All in all the book comprises fifteen chapters of which four are devoted to Mini Office's word-processing module, three to communications, two to the database and spreadsheet modules respectively, and finally one to the graphics module.

Hughes works on the principle that, as the reader and user of Mini Office, you can only really get to grips with the facilities on offer by actually using them. The manual adopts this same approach of 'hands-on' learning, but where the book triumphs is in its ability to locate a destination, for example a mailmerge exercise, and provide thorough and unambiguous directions as to how to get there: producing a matrix document, then designing a database layout, merging data into the matrix document, outputting the letters and so on. In other words, not only does it explain what you're doing, but why you're doing it – precisely where a lot of software textbooks fall down. The examples that he provides of the various uses to which you could put the various modules are realistic and helpful.

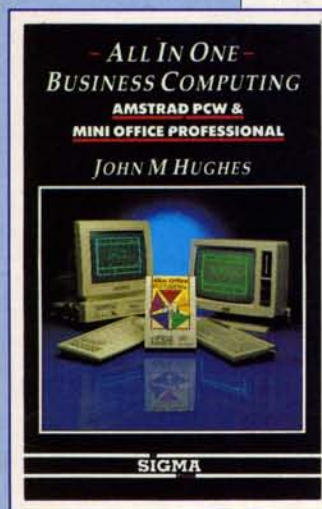
He also goes to great lengths to explain that Mini Office is one very powerful and versatile package as opposed to five individual programs that have just been bought together. In other words, he stresses the integrated programming aspect of Mini Office in a way that is not at first apparent on reading the manual. He shows, for example, how the word processing and database modules can work together in much the same way as the spreadsheet and graphics modules can. He explains how files are transferred between modules and how to access data saved by one program while you are running another. He also shows how each module will present what is essentially the same data in different ways depending on the format being used.

A welcome feature not found in Mini Office's manual is that you find out explicitly what you *can't* do – for example import data from LocoScript into the database, or export it to another database.

## Good shot

The instructions provided by Hughes for performing a certain operation are step by step and very detailed. The book is also comprehensively illustrated with frequent screen shots to help you on your way. The results of each important keypress are illustrated, as are the options that are consequently available to you.

Whatever you use Mini Office Professional for, whether it be number-crunching, business graphics, or plain old word-processing, "All in One Business Computing" guarantees a comprehensive, no-holds-barred treatment of each of the five modules. A worthwhile investment for any MOP user, whatever their level of experience.



### hs and Charts

one useful facilities offered by the Mini Office Professional suite of graphics module. With this you can produce graphs which are derived from data (or results) or from data which has been entered directly into the module itself. The graphs can then be displayed on the screen and hard copy; they can also be saved on disc for future use.

### cs from a spreadsheet

simple it is to create graphics from the data contained in a spreadsheet, the spreadsheet module into your PCW and then calling up the sheet and at the beginning of Chapter Ten, and which was saved under the name SP8.

### a graphics window

on the screen, your next task is to create a special window, called a view, which will contain both the headings and the figures which are to be graphed. A graphics window must contain at least one column and one row. Additionally, up to 20 columns and 20 rows can be included in any given view. Set up the graphics window in the same way as the ordinary window described in Chapter Nine: that is, enter window mode by pressing (PAGE) and then up Function Key (F6) to start including columns in the window, using the right arrow key to bring in each column in turn and then pressing (RETURN) to place it in the window. When Column A - F have all been included, press (F6) again to finish adding columns and then press (F6) to incorporate rows into the graphics window.

When you have finished, the graphics window should include Column A - F and Rows 001 - 012, and should look something like Fig. 11.1. Now press (EXIT) to go to the Spreadsheet Main Menu, and then choose the LoadView option. At the LoadView menu, select Save Graphics Data; the menu printed in Fig. 11.2 will be shown.

**ALL IN ONE BUSINESS COMPUTING: AMSTRAD PCW AND MINI OFFICE PROFESSIONAL (ISBN 185 058 124-X)**

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So far in the series we've been seeing how LocoMail functions as a mailmerge program on the basis of information read from a datafile or typed in from the keyboard. But the program is capable of doing a whole lot more – like all your sums too. Nothing too complicated – you don't need a degree in maths to get the program to do what you want – but it can save you a lot of seriously boring number-crunching.

The most popular uses for LocoMail's arithmetical functions are for calculating invoices, VAT and generally working out percentage discounts or markups. It is possible, for example, that a mail-order company would keep on a datafile details of all their customers' names, addresses, and monthly credit purchases. Then, at the end of every month, they send an invoice mailshot to all their customers requesting the various amounts of money owed. The program will automatically calculate VAT on those amounts as well as any other percentage increase or reduction that the company might be offering for first-time purchasers.

All you need to do is provide the program with the figures it requires (these will usually be stored in the datafile) and the method through which the calculations can be made. It may well be that each of the customers on the datafile has a different number of credit purchases. If this is the case, take care when setting up the initial record pattern that you are making provision for the largest number of purchases. In this case, our record pattern contains separate fields for Cost\_1, Cost\_2, Cost\_3 and Cost\_4, even though we know that the first customer in the file has only made two purchases during the month of September. In the fields Cost\_3 and Cost\_4, we've entered a zero value so that, on merging, nothing will be entered into the form document under those variable names.

The information required by the program can also be typed in at the keyboard using the Fill mode. This generally tends to be more time-consuming, though.

Remember that LocoMail can only ever carry out arithmetic using real numbers: numbers which contain percentage signs, £ or \$ signs and so on are out. It will add, for example, 12.34 and 56.78 but not £12.34 and £56.78. Decimal points are OK of course. One way of making doubly sure that you enter true numbers in your form document when in Fill mode is to place the # sign after the question mark prompt: (+Mail) ?#:sum(-Mail), for example. Typing in anything remotely non-numeric after this will cause your machine to bleep and the program will reject the information that you're trying to enter.

## Pounds, shillings and pence

Since you will ultimately want a currency sign of some description in the form document when it has been printed out after merging, the most straightforward way of including it is to insert the sign into the form document itself, outside the LocoMail codes. Alternatively, you could insert the command:

```
(+Mail)total= "£" &
[Cost_1+Cost_2+Cost_3+Cost_4](-Mail)
```

The instruction enclosed within the square brackets tells the program to add the information in the fields Cost\_1, 2, 3 and 4 together first of all. The preceding ampersand and pound sign (don't forget the quotation marks) is telling LocoMail to add the pound sign to the resulting calculation.

You do tend to get the odd problem cropping up, though, when you use this method. Because the concept of 'total'

# COUNTING THE COST

LocoMail Part 3: Sharon Bradley, not usually a calculating sort of person, shows you a few arithmetical tricks...

has now been defined as having the pound sign added to it, any use of the word 'total' in further LocoMail commands (which is extremely likely) will cause a syntax command mismatch error. For this reason alone, it's often better to insert the currency sign into the form document outside LocoMail codes.

This command is not, in itself, enough to cause the contents of Total to be printed out; it merely causes the result of the arithmetical operation to be stored in the variable named to the left of the = sign. Only if you consequently type in the variable name within LocoMail codes will the answer to the calculation be entered in the document. This command can be entered in two different but equally valid ways: (+Mail)total="£" & [Cost\_1+Cost\_2+Cost\_3+Cost\_4]:total(-Mail) or

```

A: group 0/CUSTOMER.824 Editing text. Printer idle. Using A:
Layout 1 Pil2 L51 CR+0 LP6 Page 1 line 1/54
f1=Actions f2=Layout f3=Style f4=Size f5=Page f7=Spell f8=Options EXIT
-----
Title
Forename
Surname
Customer_Address#Cost_1#
Cost_2#
Cost_3#
Cost_4#
-----
Col#
Horation#
Bunkerton-Bough#
22, Pottery Row#
Claymakers Ave#
Potsdown#
Staffs#12.00#
13.50#
0#
0#
-----
Profe
Cornelius#
Dunderhead#
33, Pilchard Ave#
Cambridge#13.75#
15.40#
11.95#
5.60#

```

## Hints and Tips

When creating your form document, complete with LocoMail codes, set up a decimal tab so that all the amounts owed will be positioned, one below the other, with the decimal points neatly aligned. To insert a decimal tab in LocoScript 2, press [f2] and 'change layout'. Move the cursor to the point on the ruler line where you want the decimal point to be, press the [+ ] key three times to set the tab, then get back to the document with [EXIT]. To work out the VAT-inclusive price on a VAT-exclusive amount you multiply by 1.15; if you

want to work out how much of a VAT-inclusive amount is VAT, multiply by three twenty-thirds (or 0.130434783); if you want the VAT-exclusive price from a VAT-inclusive price, multiply by twenty twenty-thirds (or 0.869565217). For example:  
 (+Mail)VATInclusive=[VATExclusive\*1.15  
 [2](-Mail) and  
 (+Mail)VAT=[VATInclusive\*0.130434783  
 [2](-Mail) and  
 (+Mail)VATExclusive=[VATInclusive\*0.869565217] |(-Mail)



```

g: group 0/LOCO .824 Editing text. Printer idle. Using A:
Layout 1 P112 L51 CR+0 LP6 Page 1 line 1/54
f1=Actions f2=Layout f3=Style f4=Size f5=Page f7=Spell f8=Options EXIT
-----
Fullname = title & " " & forename & " " & Surname:
Fullname
Customer Address
Salutation = title & " " & Surname
Dear Salutation

Congratulations on completing your first month's membership with The
Gorgeous Gadget Club. We hope that our range of products will provide you
with long and faithful service.

MONTHLY STATEMENT

September purchases: £total=[Cost 1+Cost 2+Cost 3+Cost 4 | 2]:total
Less VAT @ 15%: £vat=[total*0.15 | 2]:vat
SUM OWED: £sum=[total+vat]:sum

Next month's special offer includes the Sooper Dooper Toaster Poacher.

Mr Flewsy
Managing Director.

```

```

(+Mail)total="£" &
[Cost_1+Cost_2+Cost_3+Cost_4] (-Mail)
(+Mail)total (-Mail)

```

## String 'em up

The same technique is used to join together non-numeric character strings. Our datafile, for example, contains separate fields for Title, Forename and Surname. If we wish to refer to the eventual recipient of our letter by his or her full name, this would necessitate creating a new field in the form document called Fullname (unsurprisingly) and then concatenating the various fields in the datafile:

```

(+Mail)Fullname = Title & " " & Forename & " " &
Surname (-Mail)

```

Without the blank spaces enclosed within quotation marks, you'd end up with 'Col.HoratioBunkerton-Bough' instead of 'Col. Horatio Bunkerton-Bough'.

Although, in a certain sense, you're actually adding variables to each other by using the ampersand, it's not really anything like a mathematical + sign. So, concatenating two numerical variables will not result in a combined total; the two numbers will merely be placed together end to end.

```

g: group 0/LOCO .824 Merge documents. Printer idle. Using A: M:
Layout 1 P112 L51 CR+0 LP6 Page 1 line 28/54
f1=Actions f2=Layout f3=Style f4=Size f5=Page f7=Spell f8=Options EXIT
-----
Col Horatio Bunkerton-Bough
22, Pottery Row
Claymakers Ave
Potsdown
Staffs

Dear Col Bunkerton-Bough

Congratulations on completing your first month's membership with The
Gorgeous Gadget Club. We hope that our range of products will provide you
with long and faithful service.

MONTHLY STATEMENT

September purchases: £25.50
Less VAT @ 15%: £3.82
SUM OWED: £29.32

Next month's special offer includes the Sooper Dooper Toaster Poacher.

Mr Flewsy
Managing Director.

```

## Mail order

The \* symbol is used in LocoMail (as usually in computing) as a multiplication sign, whilst / is universally acknowledged as being the division sign. The normal order of calculation is observed with LocoMail: multiplication and division are carried out first, followed by addition and subtraction. If, for example, you need to add two values together and multiply the result, it is important that you use another set of square brackets to prioritise the sequence of calculations.

If our mail order company had wanted to do the VAT calculation in one line it might have used the following command:

```

(+Mail)VAT=[(Cost_1+Cost_2)*0.15] (-Mail).

```

The program, having observed the double set of brackets, will add the first cost to the second and multiply the result by 0.15. If you consistently end up with a 'Command Syntax' error on merging, check that you have the right number of brackets in your command. Command syntax errors are nearly always the hardest to spot but the easiest to put right once you have pinned them down. ■

## Any shape or format

It's largely up to you to prevent LocoMail from recording the results of its calculations on printout in its default format. Generally speaking, all minus values are printed out with a minus sign in front while positive values are not. Numbers are printed out with up to nine decimal places if necessary. Altering default values is done by typing in a vertical bar between the end of the arithmetical expression and the closing square bracket. The vertical bar is produced by pressing ENTER and the < key simultaneously. In our case, we only need our numbers to be printed out correct to two decimal places, so we've typed the number '2' after the vertical bar. This means that all values will be printed out correct to 2 decimal places even when less would be just as accurate. Where financial calculations are concerned, however, this is obviously much more desirable.

You also have the choice whether you want your calculations to be presented in a truncated or rounded form. (Think of the VAT on £0.99. It works out as £0.1485 – ie. just under fifteen pence. If you truncate this figure to two decimal places you get £0.14, but if you round it you get £0.15. The second is the one the taxman will want!). For truncated figures simply type in an exclamation mark after the decimal format number; for example, (+Mail)VAT=[Total\*0.15 | 2!] (-Mail). Type in nothing if you prefer to have the calculation rounded off.

Left to its own devices, LocoMail will insert a minus sign in front of a negative value and nothing in front of a positive one. If, you prefer to have your positive numbers clearly displayed as such (to emphasise a credit perhaps) then all you have to do is insert a + sign after the vertical bar in front of the format number:

```

(+Mail)VAT=[Total*0.15 | +2] (-Mail)

```

Inserting a - sign, on the other hand, will prompt the program to leave a space in front of the positive number.

As if all this were not enough, LocoMail also offers the facility of grouping together figures in large numbers to make them easier to read. Even then, the two most popular methods of doing it are amply catered for: Inserting a '/' between the vertical line and the decimal format number will cause the number six hundred million to be written as 600,000,000 whilst inserting a '\ ' ([ALT] and [1/2]) will cause it to be written as 600 000 000.

LocoMail can also change the format of the decimal marker, if required; it can be printed out either as a point (in which case insert a '.' after the + or - sign), or a comma (in which case insert a ',' in the same place).



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# SECOND CAMING

Alec Rae makes a date with Camsoft's updated database...

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But users, and software designers, always want a program to do more – hence this new version of the old PCW favourite database.

## CAMBASE SERIES II

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Cambase does the simple things well but the advanced features can cause some anxiety. On the plus side, the manual gives you a good worked example of a simple club membership database; it even shows you how to modify this include fancy features like conditionals, loops, validation of fields and specified layouts – producing a professional looking database.

Conditionals are where you can set a field to only appear depending on the answer from another field; loops let you repeat the same field or series of fields over and over (say in a three line address field) and validation is where you specify what characters you can enter in a field.

However, throughout the early part of the manual, it hints darkly at powerful features that are only limited by your own powers of imagination. These include enticingly named features such as variables, processes and narratives.

Unfortunately the manual also only hints at how to use them. There are technical explanations but not the step by step instructions or the worked examples needed to understand these complex features.

### Bad Memory

Cambase 2 won't allow you to use the memory, which could cause problems on an 8256.

## Everything in the world

If you were wondering how validation of fields or conditionals would work in practice just think of a sensible, practical example. Say you were classifying everything in the world into a strict 9-class pattern of groups (Things with toes, Tall things, Chinese things, Ruminants etc); you could set a field asking "Is it a ruminant?". If the answer was "N" for "No" nothing would happen. If you entered "Y", another field what appear saying "What

kind?". Then you could specify say L for Llama or G for Goat. Try entering A for Armadillo and the entry is rejected.

With a particularly rare ruminant you might want to take a note of its address. Just loop an "Address", repeated three or four times. Then your only problem would be classifying everything in the world on to one side of a 178k disc.

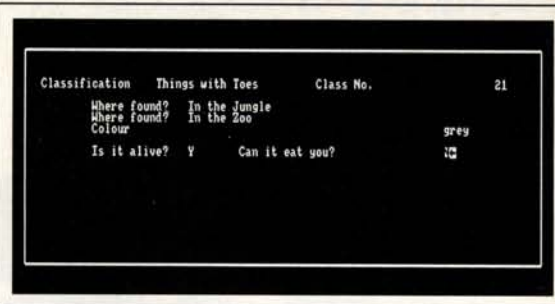
### CAMBASE SERIES II PLUSES

- ▲ Quick and efficient
- ▲ Powerful features – loops, conditionals, processes
- ▲ Simple parts of program well covered in manual

### MINUSES

- ▼ You have to guess how to use the advanced features
- ▼ Program not too robust, crashing occasionally in Filespec update
- ▼ Not much room for prompts

RANGE OF FEATURES	4/5	EASE OF USE	2/5
PERFORMANCE	4/5	DOCUMENTATION	2/5
8000 PLUS VALUE VERDICT 3/5			



### Process beef

A process is like a macro that allows you to work on records in a database – to produce data or to alter fields in the database. Say you have all your stock prices listed in a database and afterwards decide to increase all prices by 15%. With a process you could add the 15% to each value and use a variable to add up the total value of the stock. Processes also allow you to manipulate the information in a record producing the exact layout of fields you want.

But when you come to create a process you are faced with bewildering screens of blank variables, input items, derived items and output items. There are no prompts to lead you through and it does take a lot of logical deduction and trial and error to get them working.

Again it is in this section that you would use narratives – chunks of text that you can add to your output. There is, however, less than a page in the manual on the subject and no real explanation of how to use them. It is achieved by defining a narrative in the Update Narrative section, typing in the number (for example N1) in the Output Items section of the Update Processes section and following the prompts. It's not as easy as its sounds.

### Big max

There are some changes to the operation of the new updated version, most notably the Copy Filespec facility. Cambase works by allowing you to set up a Filespec – a blueprint for your database – and then testing it thoroughly before actually committing any data to disc.

Then you 'initialise' the data disc, a process that involves deciding on the maximum number of entries your database will eventually hold. Then that part of the disc is formatted to take the correct number of entries – so that you won't run out of space unexpectedly.

This is great until you want more than the maximum number of entries in your database. And this is where Copy Filespec comes into use. You can set up a new database with potentially more entries, using the information from the original database. Or you could change the fields to suit another setup. Again this is not the easiest facility in the world to use but it does get round one potential difficulty in Cambase.

Overall a good, powerful package – though you'll need to spend a bit of time to get to know the more sophisticated features which never quite work out as easily as they sound in the manual.



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# The PCW Oracle

What's going to happen to predictive software? Alec Rae looks into the future.

No matter what you think about the truth or effectiveness of fortune telling, you have to admit that it can be pretty complicated. Astrologers can spend hours producing reams of obscure calculations. And the traditional yarrow stalk method of casting hexagrams in I Ching, the Chinese form of prediction, can take years to learn and hours to accomplish.

Exponents of the 'predictive arts' don't relish the kind of precise detail and advanced mathematics involved. So it is not surprising that more and more are turning to the power of the computer to help them out.

Now they can get all the thousands of astrological computations carried out quickly and accurately, allowing them to concentrate on the part they are best suited to – the interpretation.

**A**strology is the prime example of how a computer can be helpful. The theory behind star gazing is that you are supposed to be affected by the influence of the planets. How the planets were positioned at the moment of your birth (your natal chart) will fundamentally affect your personality and as each planet moves through the heavens it will have a greater or lesser influence on your daily life.

The theory sounds great until you realise how many computations are needed to follow these movements. Working out the position of the sun, the nine planets, your ascendant (what sign was just coming up over the horizon at the moment of birth) and the mid heaven (medium coeli – what was directly overhead) could be time consuming. Working the same details out for every day of the week and comparing them with the natal chart is mind-bogglingly complicated.

## The future in the past

Life wasn't easy for the old style astrologers. Working out a simple natal chart meant searching out the latitude and longitude of places like West Penge, working out 'sidereal time' in double Summer Time and looking up details in the ephemeris for 1923, a pretty uninteresting book packed with details of where each planet happened to be on the night of the 23rd. Of course fate always decreed that they would have the ephemeris for 1922 and 1924 but would have to send away for the 1923 edition.

Once they had a list of where every planet was situated they had to draw them in the right place on a chart (a circle with the 12 signs of the Zodiac) and then work out how each

planet was placed to each other. A lot depends on whether planets are 120 degrees apart (trined), or 90 degrees apart (squared) for instance.

This was the natal chart which would give the astrologer a deep insight into the personality of the person involved. A particular planet in a particular sign of the zodiac meant a particular character trait. If the same planet was trined, sextile, squared or opposed to another important planet this added another element to the interpretation. And finally depending on which house the planet was in (a division of the zodiac into 12 sections based on the position of the ascendant) it had an influence on specific aspects of your life.

However this did no more than tell them what kind of personality you have. If they wanted to start on what is supposedly the real aim of astrology – making predictions as to future influences – they then had to produce the same mass of computations for each day in question and compare them with the natal chart.

## PERSONAL COMPUTER ASTROLOGY

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There is a professional feel about the Personal Computer Astrology package – partly from the amount of detail that the program can generate and partly because it doesn't give too many concessions to the astrological beginner.

There are two quite thick manuals packed with detail about the program. Although free of most computer jargon they do have some astrological terminology that would quickly leave the beginner feeling out of his depth. In fact the computer side of the program is remarkably easy to grasp – the astrological side would take a while to plumb its depths.

This is at least partly because the program tries to do so much. The basic function of the program is to produce a natal chart and, using a quite complicated interpretation text file, to produce a detailed summing up of the character of the person involved.

Most helpfully it also produces a drawn chartwheel, either to screen or to the printer. The chart is invaluable for a proper interpretation, giving an easily digested form to a lot of otherwise incomprehensible material. It also gives a real professional touch as far as the customer is concerned. You

### Is it popular?

The main difference between this kind of Astrology and the sort churned out in the popular tabloids every day is a matter of scale. As far as the newspaper Astrologers are concerned the only influence on your life is your sun sign. This means that in any one day a twelfth of the world's population should "expect an unexpected letter" or whatever. Serious Astrology is a lot more complicated.







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Protex Office	£34.95	BCPL	£24.95
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manual seems surprisingly thin. This does not mean that it doesn't have its own sophistication, although it does mean that it is pretty easy to get to grips with.

## Something for everyone

In fact it is a program that could work equally well for the inexperienced and experienced user. You could just use it with the text files provided to give a simple forecast or you could completely rewrite the file for your own interpretations.

A useful compromise would be to use the ASCII file writing feature where the whole prediction is written to a text file on disc. Load this into your word processor and you could modify, change or tidy it up to your hearts content. You can have all the planetary details included to allow to to decide whether you agree or disagree with the programs interpretation.

This would seem to be a particularly useful idea as some of the text provided would not suit everyone – especially the quite frequent suggestions that you should take part in sport.

The program is mainly aimed at the professional with neat little details like a simple program to print out an impressive looking order form. As it is expected that the user will be producing a number of forecasts at the same time the program allows you to choose either a previously set configuration or to modify the details each time. This covers details like how many months to cover, whether to print the foreword and/or the astrological indicators, whether to look at the aspects of the inner or outer planets or both, whether to print to disc, and (if on paper) whether NLQ or draft quality.

Then it runs through the batch producing the printed text or file as you require in turn.

The real advantage of this program is that it gives you a real feel of how long a planet's influence may affect your life. Throughout the forecasts you will see something like "+-23 days approx" which shows how long a particular influence will last.

Where it perhaps falls short is that it doesn't take into account what sign of the zodiac the planets are in, which could affect the interpretation. Many however will think the forecast is complicated enough as it stands.

## I CHING

### £5 ● Astrocalc (0442 51809) ● All PCWs

This could be thought of as a real instant computer prediction. I Ching is really a 2000 year old Chinese book with a list of 64 hexagrams (symbols made up of six broken or unbroken lines) each with its own 'judgement' – a not particularly lucid piece of text.

You ponder any problem, cast the hexagram and read off the judgement. The method was much loved by the psychologist Carl Jung who saw it as an excellent way of tapping the powers of the unconscious.

The traditional method of casting the hexagram was a particularly complicated piece of manual dexterity using 50 yarrow stalks and half an hour of valuable time. Compared to this the Astrocalc program picks you a random hexagram in seconds and even takes a stab at giving you a more meaningful explanation than the average I Ching judgement.

Again you ponder the problem but this time you merely press a key at what you consider the right moment. Your chosen hexagram is shown, with a line of interpretation for the hexagram to deal with the present situation. The program also shows moving lines (specially meaningful lines that you would get with the Yarrow stalk method) and these each have a short interpretation. These moving lines are then reversed to give you a hexagram dealing with the future.

As the interpretation of the I Ching judgements is very subjective the purists could well argue against the shortened

## We have the technology

Compare the traditional method of producing astrological analyses with using a program on the PCW where you just type in the details of the time and place of birth (if the program has a gazetteer it will work out the latitude and longitude of most towns). It will print out the position of all the planets and automatically give you a list of all the aspects (where the planets are placed in comparison to each other). You can even take this further and get the program to work out the position of the planets for any day and how the positions compare with the natal chart in question.

Despite having this superabundance of precise detail at their fingertips, however, even astrology's most ardent supporters wouldn't describe it as an exact science. The astrologer still has to spend a long time working out what it all means, balancing up perhaps several conflicting influences of varying importance. Compared with the drudgery of mathematical computation this is the art of interpretation.

But can the computer help in the complicated task of interpretation. Time and again you come up against similar situations, planets in the same position, which you feel should be given the same interpretation.

Generally speaking every time you see Mars squared to natal Venus in Pisces it should always mean roughly the same thing. However there are obviously going to be differences if you are reading the chart for a 16 year old girl or a 75 year old man. While the essence of the reading will be the same the details will obviously be different.

Add to this the fact that there are as many ways of interpreting in astrology as there are stars in the sky. Each astrologer will probably interpret the same facts in a slightly different way. This is not unreasonable – have you ever had a second opinion from a doctor?

With all these conflicting influences, you quickly see that there is a need for a degree of inbuilt flexibility in any serious astrology interpreting program.

versions that the program provide. However as the judgements themselves are commonly regarded as quite obscure it is obvious that the changes were made in an honest attempt to give a more meaningful interpretation. Purists could sit with a translation of the I Ching and look up the more traditional judgements if they felt inclined. ■

● If you are wondering what the strange goat/fish creature is, it is the traditional symbol for Capricorn.

## PERSONAL COMPUTER ASTROLOGY

### PLUSES

- ▲ Wealth of astrological features
- ▲ Parameters and interpretations can be modified

### MINUSES

- ▼ Not for beginners
- ▼ Transits limited

**RANGE OF FEATURES  
PERFORMANCE**

**4/5  
3/5**

**EASE OF USE  
DOCUMENTATION**

**3/5  
3/5**

## FORECASTER

### PLUSES

- ▲ Could suit beginner and expert
- ▲ Parameters and text can be easily modified

### MINUSES

- ▼ Could have given permanent details of natal chart

**RANGE OF FEATURES  
PERFORMANCE**

**4/5  
3/5**

**EASE OF USE  
DOCUMENTATION**

**4/5  
2/5**

## I CHING

### PLUSES

- ▲ Compared to Yarrow stalk method, blindingly fast

### MINUSES

- ▼ Judgements perhaps not very accurate

**RANGE OF FEATURES  
PERFORMANCE**

**2/5  
4/5**

**EASE OF USE  
DOCUMENTATION**

**4/5  
2/5**



Make the headlines and cut through the fog  
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## PS-HEADINGS

£11.95 ● ORB Systems (01-690 8534)

### ● 8000s only

PS-Headings is a software addition to Arnor's Protext word-processor and, for the first time, enables Protext users to create headings in their documents without having to recruit the help of a fiddly desk top publishing program.

Using the 8000 series dot matrix printer, the program (written in Protext stored commands) allows you to print single lines of double and quadruple height characters without coming out of Protext. When the time comes to print out the chapter of your latest novel, or whatever, the headings are printed out as an integral part of the text in the normal way.

PS-Headings, which can run from any drive, provides you with a choice of three fonts: double height, quadruple height and inverse quadruple height (meaning that the latter will print out headings white on a black background). You also have a choice of two print modes: single strike, which is the equivalent of a draft quality printout, and triple strike. This option, not surprisingly, takes that much longer because it delivers a fully-blackened Near Letter Quality result.

Using the program involves two processes: setting variables for the heading in question and then processing

those commands which have been inserted into the document on the left of the heading. There are a surprisingly large number of variables (thirteen, to be exact) that you can set in order to control the final appearance of the heading. If you don't alter them, they will maintain their not totally unreasonable default values.

## ps-HEADINGS

... and flexibility of Protext the  
ext stored commands, and and so is  
processor. The re is no ne need to q  
other program s.

Headings can be centred, shaded and underlined (you can even determine the thickness of the underline and its exact position in relation to the main heading characters.) You can print out immediately or preview to screen without printing, if you like, depending on the variables that you set within the document. Document layout can also be altered to taste.

The more adventurous your headings (the bigger the size of the font and the greater the number of variables set, for instance) the longer the program will take to process the commands. While you won't quite have the time to eat that vindaloo while you're waiting, you will be able to make a cup of coffee (or twelve) in the interim.

The variety in the fonts available isn't vast; the main difference is one of size rather than style. On the other hand, the style of the fonts is relatively innocuous and will probably prove suitable for most kinds of documents, if not all. The accompanying documentation is OK and does prepare you for most of the oddities you're likely to encounter in the program (like wrapping capital letters in curly brackets when entering the text of the heading). A useful program for all dedicated Protext users.

<b>RANGE OF FEATURES</b>	<b>3/5</b>	<b>EASE OF USE</b>	<b>3/5</b>
<b>PERFORMANCE</b>	<b>4/5</b>	<b>DOCUMENTATION</b>	<b>3/5</b>
<b>8000 PLUS VALUE VERDICT 4/5</b>			

## TEXATRIX

£5.99 ● Scarabeus Software (01-515 4313)

### ● All PCWs

Texatrix, from Scarabeus Software, is a refreshingly simple program which costs little more than a blank floppy. It has been designed to act as a comprehensive text analyser no matter what kind of writing you indulge in. Although Texatrix

will calculate the number of words, sentences and blocks in your ASCII-presented file, not to mention the exact number of ASCII characters present, it also has the potential to be much more than a text quantifier.

It enables you to assess the readability of a given text; in other words, if you can assimilate what you're reading while watching EastEnders and simultaneously concocting a vindaloo for a dinner-party of twelve, then the chances are that it's not a particularly demanding piece. If, on the other hand, you need to sit down in a quiet room with a bottle of lavender water, then the reverse is probably true. Eventually, you can arrive at a numerical value to reflect the ease with which a piece of writing can be comprehended: the lower the number, the

less taxing the level of the language used, and vice versa.

As well as carrying out simple quantifying exercises of the type mentioned earlier, Texatrix will also present you with the average number of words in a sentence and the average number of characters in a word.

If you add the words per sentence to the number of words equal to or greater than three syllables in your file (per hundred words), excluding all proper nouns and hyphenated compounds, and multiply that number by 0.4, then the result should be roughly indicative of the number of years schooling a reader would need to understand the text; the resulting numerical value is known as the FOG index.

Standard English, for example, has a FOG index of 7-8. It therefore came as something of a shock to learn that tabloid fog was 12 (a dozen or so more than was supposed) but still easily penetrable when compared to a pink-hued appraisal of banking deregulation in New Zealand which scored 14.

If, as a writer, you're into heavy analysis of your output, creative or otherwise, you will probably find Texatrix a useful tool by virtue of its ability to analyse style in a totally impartial manner. Then again, the only trouble is that the program will only do half the work to arrive at a FOG index; you have to work out the number of non-hyphenated non-proper noun words of more than three syllables, and do the calculation, yourself. Still, at only £5.99, it would be unrealistic to expect too much, and whether you take it seriously or not, it's still a fun program to have around.

<b>RANGE OF FEATURES</b>	<b>2/5</b>	<b>EASE OF USE</b>	<b>5/5</b>
<b>PERFORMANCE</b>	<b>4/5</b>	<b>DOCUMENTATION</b>	<b>3/5</b>
<b>8000 PLUS VALUE VERDICT 4/5</b>			

22 BUSINESS AND FINANCE

**BUSINESS ROUNDUP**

**Staley broker sold by Tate & Lyle to Drexel**

The season's most significant financial transaction began yesterday when Drexel Burnham Lambert, the US investment bank, announced it had bought Staley, the UK's largest commodity broker, for \$1.2 billion. The deal also marks the end of a multi-million dollar lawsuit which Staley brought against Drexel in 1985, after the investment bank had bought a highly leveraged bid, said Staley. In addition, Staley has entered into a contract to run for at least two years for Drexel as carry out its agricultural trading operations. The deal is the third conducted by the subsidiary being sold. The deal is the third conducted by Tate Lyle Staley earlier this summer. The further large Staley sell-offs are now expected.

**Beales ahead 36% to £2m**

John Beales, the clothing store chain, has bought a 36% stake in TIP Europe, the trailer company, for £2m.

**TIP Europe tankers deal**

TIP Europe, the trailer company, has bought a 36% stake in Beales, the clothing store chain, for £2m.

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# DIY GRAPHICS

How to make your 8000's printer do any graphics you like – without any special software!

The basic idea is something like this. By sending a certain sequence of codes to your printer it will print out any pattern you like for a line. For example, in BASIC, the command `LPRINT CHR$(27) + "L" + CHR$(50) + CHR$(0)` followed by a series of digits will get the printer to print out a fifty-dot-wide line of graphics, whose shape is determined by the digits. Mini Office and Protext have their own way of doing this too.

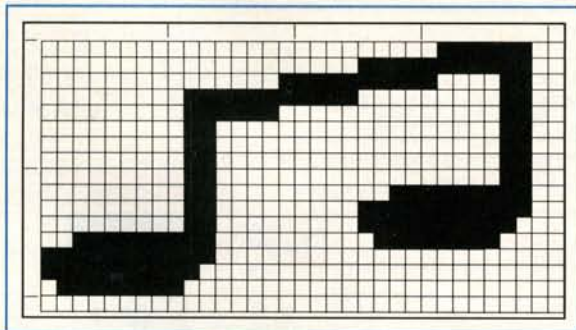
So, by putting suitable lines in your BASIC database or accounts program, you can print out not just text but fancy borders and boxes too. You could write your own Japanese or runic word processor in BASIC using the following ideas to encode all the characters. You can design your own characters and symbols to any size you like. In Mini Office or Protext, you can set up special graphics to use as templates which have a letterhead of your own design at the top.

## 9512 note

9512 owners — sorry, none of this applies to you! It's only valid for the 8000 printer.

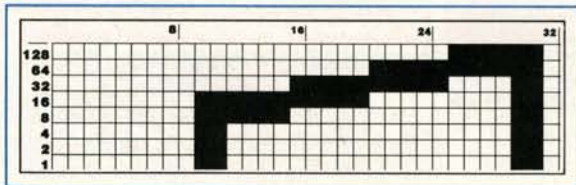
The first thing to do is your design. Suppose you want a musical symbol for your club newsletter. Get some graph paper from somewhere and draft out your design; then fill in squares on the graph paper so that the block pattern resembles your design, remembering as a guide to the size of the result that one line is eight squares deep and one elite (12 pitch) letter will be ten dots wide. The upshot of this is that you have to design the thing twice as wide as it will look like when printed out. Perhaps the best idea would be to use two squares down for every one square across, which would stop this distortion.

Suppose your design looks like this:



The next stage involves rather a lot of mind-numbing addition, so a calculator would be a useful thing to have here. Split the design into rows, each eight deep; each row corresponds to a line on the printout. Then take each row in turn and write the numbers 1,2,4,8,16,32,64,128 at the side, up from the bottom, one number to each line. The top and bottom halves of the design above then look as below.

For each column, note the number you get by adding up



all the numbers with black squares in them. The top half of the note design would give the following. The first nine columns are zero, as there are no black squares there. Columns 10 and 11 give 16+8+4+2+1, or 31; columns 12 to 15 are all 16+8, or 24; column 16 is 32+16, or 48, and so on.

For the top half of the note design you end up with thirty-one figures, one for each column, viz. 0, 0, 0, 0, 0, 0, 0, 0, 0, 31, 31, 24, 24, 24, 24, 48, 48, 48, 48, 48, 96, 96, 96, 96, 96, 192, 192, 192, 192, 255, 255; and for the bottom half, similarly, you get the sequence 6, 7, 15, 15, 15, 15, 15, 15, 15, 254, 252, 0, 0, 0, 0, 0, 0, 0, 0, 0, 48, 56, 120, 120, 120, 120, 120, 120, 240, 224.

## Purely routine

Now you can write a short BASIC routine to print out this lot. In essence it is just the command `LPRINT CHR$(27) + "L"` followed by a few numbers in `CHR$` functions. The first digit is the number of dots wide your pattern is. If it's bigger than 256, keep subtracting 256 until it's less than 256; so a 31 wide pattern would have 31 here, a 300 dot pattern would have 44, a 600 wide pattern 88.

The next number is the number of times you can take 256 away from the width of the pattern. 31 would give 0 here, 300 would give 1, and 600 yields 2.

So, for a 31 wide pattern you'd have `LPRINT CHR$(27) + "L" + CHR$(31) + CHR$(0)`; for a 300 wide pattern `LPRINT CHR$(27) + "L" + CHR$(44) + CHR$(1)`; for a 600 wide pattern, `LPRINT CHR$(27) + "L" + CHR$(88) + CHR$(2)`, and so on.

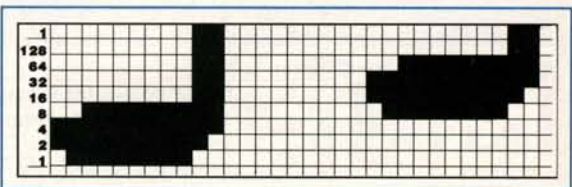
Next you put all the digits you added up above; so the bottom half of the note design will be printed out by the command `LPRINT CHR$(27) + "L" + CHR$(31) + CHR$(0) + CHR$(6) + CHR$(7) + CHR$(15) etc. up to CHR$(224)`.

The problem with this when it prints out is that the vertical spacing of the dots is quite wide — your design comes out looking very thin and 'liney'. By a sneaky bit of BASIC cunning, though, you can overprint each line of your design twice or more, each overprint slightly displaced downwards, filling in those ugly gaps.

The BASIC command `LPRINT CHR$(27) + "J" + CHR$(number)` will advance the paper that number of 72nds of an inch. Coupled with the command `LPRINT CHR$(13)`, which returns the printer to the left-hand margin, you get an easy way of overprinting a part of a graphic, slightly displaced downwards each time, any number of times. Two seventy-seconds seems to work quite well (see line 50 and 70 below) though you can experiment with other numbers.

## A small advance

To get the lower half of your note design lining up nicely with the top half, you'll need an advance equivalent to half a line





# Rough with the smooth

Astute readers will have realised this isn't the whole story. All the above listing does to get over the gaps between horizontal lines is overprint the *same* pattern a little down from the last. The note printed out above suffers from a little jaggedness in the sloping line. But for really smooth results you may need a *different* pattern overprinted. Watch the way LocoScript prints a line in NLQ: it prints one line of draft-quality-like characters, moves the paper up almost imperceptibly, then prints another line of characters, each formed from a slightly different pattern to that already printed. The result is that each character comes out pretty smoothly.

To illustrate the process involved, imagine you want to be able to print out the astrological symbol for 'Mars', which is also the biological symbol

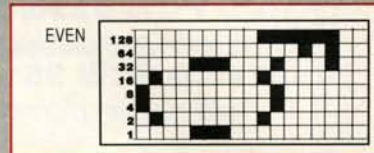
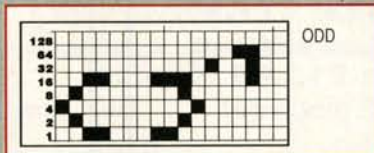
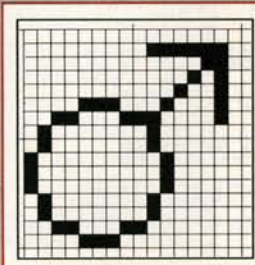
for 'male' (the steps for a female are similar).

The design will come out as a 16x16 pattern. Draw it on squared paper as before, but note that because there are 16 not 8 vertical dots you don't need to 'stretch' the design as was necessary with the note design above.

The procedure is similar to that before, except that you need to split the design into the odd rows and the even rows: You can then print out the two patterns almost on top but with the

even rows displaced downwards in a similar way to that above:

```
10 odd$=CHR$(27)+"L"+CHR$(15)+CHR$(0)
20 even$=odd$
30 FOR j%=1 TO 15 : READ d% :
   odd$=odd$+CHR$(d%) : even$=even$+CHR$(d%)
   : NEXT j%
40 DATA 4,10,17,17,0,0,0,0,17,
   17,26,4,32,0,64,112
50 FOR j%=1 TO 15 : READ d% : NEXT j%
60 DATA 12,18,0,0,33,33,33,0,
   0,146,172,128,192,128,224
70 LPRINT odd$;CHR$(27)+"J"+CHR$(2)+
   CHR$(13);even$
```



space after printing the top half. You get this by LPRINT CHR\$(27)+"J"+CHR\$(24)+CHR\$(13), though again you can experiment with numbers other than 24.

The following short listing would therefore print out your 31-wide note design on paper in two halves, each half being printed three times (in 40, 60 and 80). The semi-colons are all necessary to stop spurious line feeds.

```
5 FOR k%=1 TO 2
10 g$=CHR$(27)+"L"+CHR$(31)+CHR$(0)
20 FOR j%=1 TO 31:READ d%:g$=g$+CHR$(d%):
   NEXT j%
30 DATA 0,0,0,0,0,0,0,0,0,0,31,31,24,24,24,24,
   48,48,48,48,48,96,96,96,96,96,192,192,192,
   192,255,255
31 DATA 6,7,15,15,15,15,15,15,15,254,252,0,0,
   0,0,0,0,0,0,48,56,120,120,120,120,120,
   120,120,240,224
40 LPRINT g$;
50 LPRINT CHR$(27)+"J"+CHR$(2)+CHR$(13);
60 LPRINT g$;
70 LPRINT CHR$(27)+"J"+CHR$(2)+CHR$(13);
80 LPRINT g$;
90 LPRINT CHR$(27)+"J"+CHR$(24)+CHR$(13);
100 NEXT k%
```

see from the table of ASCII codes from p. 114 (or 549) that the code for a letter B is 66, and E is 69. ESC is 27, so the sequence to put in your command is >oc 27,69,66 and to turn off bold (ESC F) you add 27,70 to the end.

So, you can now 'translate' the BASIC listing to print out the note into Protex >oc commands. As you follow through the lines below it's a good idea to have your manual handy open at the ASCII table to check up and see which code corresponds to which character.

Don't format the document with ft or else the 'oc' lines will get split up. If you want to include some text in a line, you can't include it directly; what you must do is put in the ASCII codes for the text at the end of one of the lines. For example, to add 'Bath Music Society' in bold double-width, you want the codes to set double-width (14) then the codes to set NLQ (27,109,1) bold (27,69). then you want the sequence space-space-B-a-t-h-space-M etc. the ASCII codes for which are 32,32,66,97,116,104,32 etc. The first line of your document would then become: >oc 27, 76, 31, 0, (...graphics data...), 14, 27, 109, 1, 27, 69, 32, 32, 66, 97, 116, 104, 32, 77, 117, 115, 105, 99, 32, 83, 111, 99, 105, 101, 116, 121, 27, 70



Symbol printed with a repeated 8x16 pattern



Symbol printed with 16x16 pattern (two different 8x16s) for smoother results

## A few words

So you can do graphics in BASIC – all well and good. But some word processors also let you insert such graphics into a document. You can't do it LocoScript, but it's possible in Protex and Mini Office.

In Protex, the key lies in the stored command >oc (or in Mini Office, [SHIFT][ALT]x). This sends the codes which follow to the printer; for example, suppose you want to turn on bold and print a letter 'B'. Looking at page 132 of the CP/M manual (or page 575, Appendix II, of the 9512 manual) you see that the sequence to set bold is ESC E; you



Bath Music Society

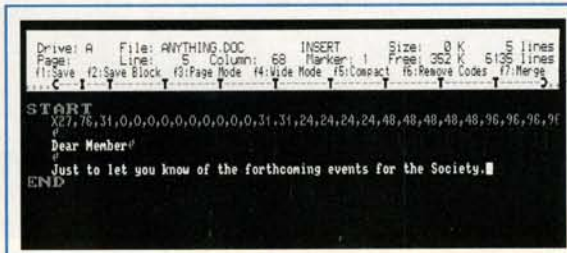
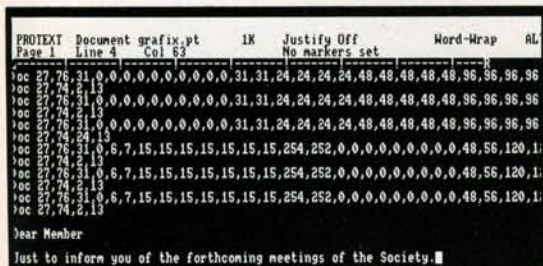
Dear Member

Just to inform you of the forthcoming mee

You can find out all these codes on or around pages 113-135 of the CP/M manual, or Appendix II of the 9512 manual. It's tedious building up your designs, but once you have them working you can incorporate them into your letter templates as letterheads and logos. And they can look really impressive!

## Mini note

The Mini Office version of the 'Bath Music Society' logo would be entered as [SHIFT][ALT]x followed by the numbers (27,76,31,0 etc.). Each number and comma is entered with [ALT] (ie. 27 would [ALT]:[ALT]7 and a comma [ALT],) and shows up dim on screen.





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If you have faithfully followed this series of spreadsheet tutorials you should now have a complete, infallible accounts system for your business all neatly set out in your spreadsheet. Well, you should have a few ideas about how to go about setting it up, anyway.

But can it perform the primary purpose of all complicated account systems – making your bank manager confident enough in your business acumen to give you a massive overdraft?

Certainly it does allow you to deluge him with more figures than a British Rail timetable. But if you have Cracker it also allows you to turn every figure into a graph or chart – assuring instant confidence.

As well as its spreadsheet facilities, Cracker has a sophisticated graph drawing section which can produce 18 different types of charts with exotic sounding names like histograms, stacked bar charts, and hi-lo charts along with a host of statistical, engineering or scientific options.

This is very important. It has been statistically proven that you can prove anything from the same set of figures merely by choosing the right method of displaying them graphically. Great care must be taken to pick the right chart so as to properly hide the figure's true significance.

And yet even with all this computing power at their fingertips there are probably people who have been using the Cracker for years without even producing a simple pie chart.

This is partly because the manual isn't over helpful in explaining the reasonably complicated process that is involved in setting up a chart. One helpful hint is the file PLOT1.MEM on the master disc, which allows you to produce a quite complicated bar chart comparing the prediction of the election results for the main political parties (pre-SLD) comparing the results of four different pollsters.

One good way to come to grips with Cracker graphs is to play about with this file seeing how changes affect the outcome. But if you are really going to deluge your bank manager with graphs you will really want a quick way to use figures you have already produced as part of your accounts system to create graphs.

### Advantage, graph

So let's continue where we left off last month with the stock control section, where you keep track of what stock is in hand, prices and markups.

This already has most of the figures and text that you need. At the top you will probably have the company name, a cell showing the period of time the report covers, and some sort of explanation of what the figures show.

These can all be used virtually as they stand, as labels in the graph. And of course you can use the figures direct from the columns just by writing in the correct column references.

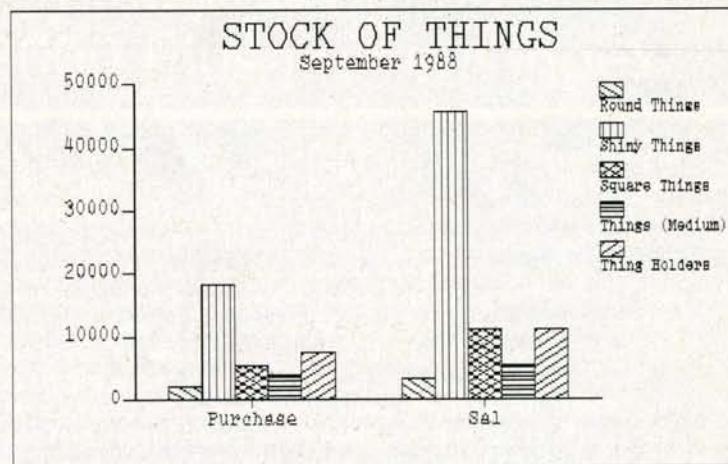
First you need to find a part of the spreadsheet you are not using. The cells need to be in some sort of numerical format (formats are the way you prepare cells to expect figures or text in a spread sheet) but if you have none suitable remember that you can change the format of a text cell.

This is simply done by cursoring to the cell, entering FG (literal translation Format to be General – an all-purpose calculator type display) and then entering the formulae.

# EXPRESS IT GRAPHICALLY

Can Cracker con the bank manager? Alec Rae reveals the secrets

STOCK OF THINGS September 1988					
No	Goods	Unit cost	Unit price	Stock Value Purchase	Stock Value Sales
1733	Round Things	1.25	1.95	2,166.25	3,379.35
456	Shiny Things	39.99	99.99	18,235.44	45,595.44
450	Square Things	12.45	24.95	5,602.50	11,227.50
89	Things (Medium)	45.00	59.95	4,005.00	5,335.55
100	Thing Holders	76.50	110.00	7,650.00	11,000.00
				37,659.19	76,537.84
	Stock Breakdown				65,057.16
			Ave Markup		32,747.12
			Max Markup		
			Min Markup		



Then you have to enter the correct commands with a cell reference to show where the information is stored. For instance if you want a heading at the top of the page you will want to use the command Maintitle. In our example the title we want is in cell B1 – "Stock of Things" so in cell B17 we write Maintitle(B1).

As this is a formula the only thing that will show up on screen will be a rather unhelpful "0". At first you might feel happier using the eXchange command to allow you to see all the formulae. By pressing X Cracker will display the actual formulae in the cells instead of the results.

Knowing this, there is no prizes for guessing how to use the Subtitle command – in this case the subtitle we want is "September 1988" in cell B2.

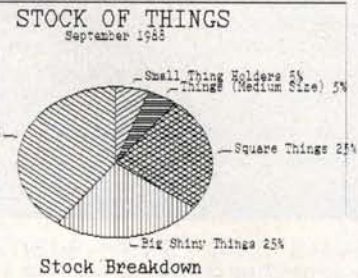
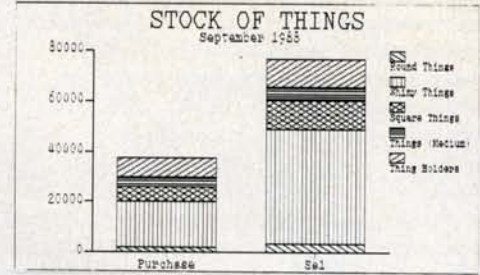
That is all pretty self evident. But what do you do with a command like Typeplot? This allows you to pick what kind of chart you want. There are a list of the types in the manual although most people will only be interested in charts number one to six (see box)

### Unique (together with...)

Unlike the other articles in this series the graph drawing facilities are unique to Cracker as far as spreadsheets go. However, you can produce graphs and charts in packages such as Mini Office Professional, DR Graph and even the DTP package Stop Press.



STOCK OF THINGS September 1988										
No.	Goods	Unit cost	Unit price	% Markup	Discounted Price	Stock Value Purchase				
	Round Things	(1.25	(1.95	(32)	(15)	(D7-1	(29)	(A7*		
	Big Shiny Things	(100)	(150)	(34)	(14)	(D8-1	(28)	(A8*		
	Small Square Things	(2.45	(3.5)	(33)	(13)	(D9-1	(27)	(A9*		
	Things (Medium Size)	(45)	(59.9	(17)	(12)	(D10-	(26)	(A10		
	Small Thing Holders	(76.5	(110)	(16)	(11)	(D11-	(25)	(A11		
						(30)	(30)	(SUM		
Stock Breakdown					Discounted Stock Value Purchase Stock Minus VAT					
(7)	(typeplot(A3)		Ave Markup	(37)						
(8)	(maintitle(B1)		Max Markup	(36)						
(10)	(subtitle(B2)		Min Markup	(35)						
(9)	(xlabel(B7...									
(5)	(timelabel(B1									
(5)	(yvalue(1,A7)									
(4)	(yvalue(2,A8)									
(3)	(yvalue(3,A9)									
(2)	(yvalue(4,A10)									
(1)	(yvalue(5,A11)									



## In the charts

There are 18 different types of chart in Cracker although most of the later ones are for very specific statistical, scientific or engineering purposes.

The ones most people will be interested in are:

- 1) - Bar Chart (histogram)
- 2) - Stacked Bar Chart
- 3) - Line Chart
- 4) - Area Chart
- 5) - Hi-Lo Chart
- 6) - Pie Chart

In this case we want a pie chart (number six). This means you have to have a "6" written in a numerical cell somewhere in the spreadsheet which you can use. In this case we merely picked A3 a suitable empty cell with an integer (whole number) format. Then you add Typeplot (A3) to your list of commands.

As we are using the pie chart there is no need to label the x and y axis as you would with, say, a bar chart so you can use the Timelabel command simply as another label at the bottom of the page. In this case we have simply used the words "Stock Breakdown" stored in cell B15 (Timelabel (B15)).

If you were using another type of chart (for instance the line chart) you could explain the graph further using Xtitle and Ytitle (Ytitle is really fun - it's written sideways).

The Xlabels are the names that you will want printed out against each section of the pie chart ("Big Shiny Things" etc) all stored in column B. You can cover all of these in one command Xlabels (B7...11).

You then type in the Y values one for each line (or segment of the pie as in this case). The values for these are the number of each product list in column A. So for the first segment you would type in Yvalue (1,A7), then Yvalue (2,A8) and so on until all the values were covered.

Then all you need to do is press T for Trace and then S for Screen and the computer starts the difficult part - working out how to follow your commands. Be warned: this does take a bit of time. During the course of this thinking time the computer might point out any elementary mistakes you might have made - for instance if you have missed out a vital element of the formula - but eventually the screen goes blank and you have the joy of seeing your pie chart neatly drawn on the screen with all the labels written in, along with the suitable per centages.

You could, of course, try and save time and go straight to printing the chart out on paper but this might not be a real

advantage. There are times when things will go slightly wrong. For example if one segment is particularly small the label for the next segment might overwrite its label. This can often be got round by changing the order of the segments.

### Bar stocks

While drawing charts and graphs is fun it may not do much more than impress the bank manager with your computer literacy. If you actually want to produce charts that are useful you might decide to do something rash like producing a bar chart comparing the stock values at sale price and at selling price.

This is not really difficult either. Last month's stock sheet provided us with all the information in columns G and H. So all we have to do is change the yvalue entries to take account of the two figures. This would be achieved with Yvalue (1,G7...H7) and so on down the list. In our example we have removed the columns in between to show everything on screen but it is just the same.

As we will want to label both sets of figures we have to look round for suitable time labels. We find these in G5 and H5 so we change the Timelabel entry to Timelabel (G5...H5).

Then, of course, you have to change the type of chart that you are wanting. This time you will probably want number one (the bar chart) or number two (the stacked bar chart) whichever you find most helpful.

### And there's more

Having grasped the basics it is easy to go on and experiment with the other commands available. For instance if you want to plot values on the X axis (along the bottom line) you would do it with the command Xvalue and a line number in just the same way as you enter the Yvalue.

Then all you need to be a consummate chart producer is to grasp the idea behind commands like Xmaximum, Xminimum, Ymaximum and Yminimum.

If you don't set these Cracker will automatically work out maximums and minimums for you but if you want to set them yourself these are the commands to use. For instance you can choose a grossly inflated Ymaximum when producing the chart of your overdraft requirements for the year making them look tiny. Similarly you can set a high Yminimum to make that slight reduction in your losses over the last five years look like a halving. These commands are the ones used most by the research departments of political parties. ■



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Find out with our  
 8000 Plus pull-out index

Here is an alphabetical list of all the features, reviews, tutorial articles, tipoffs and listings that appeared in 8000 Plus from issue 12 (September 1987) to issue 23 (August 1988). An entry like 'Egg timers: #16, Jan 88, p99' means the item on egg timers can be found in issue number 16 (cover date January 1988) on page 99.

PostScript letters, competitions and news items aren't included, nor is anything in this issue. A complete indexing service to 8000 Plus is run by Juken enterprises of Southampton (0703 769123) who will supply a disc index for you.

Back numbers are available from the Old Barn, Somerton, Somerset, TA11 7PY, at £1.75 each – issues 12, 15, 21, 22 are sold out, sorry! Issues 1-11 were indexed in issue 12 (September 1987).





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```
10 DIM lines(1000)
20 INPUT "Name of file to
30 INPUT "Name of file to
40 OPEN "1" FOR INPUT AS #1
50 WHILE NOT EOF(1)
60 READ line:lines(1)=line
70 WEND
80 FOR i=1 TO 1000
90 PRINT (lines(i));
100 PRINT "1 TO 1 STEP -1
110 IF i=1000 THEN GOTO 1
120 GOTO lines(i);lines(i)
130 NEXT i
140 NEXT i
150 FOR i=1 TO 1000
160 PRINT "2,lines(i)
170 NEXT i
180 CLS
```

Ok  
 run  
 Spell check file, Main  
 What is the word to re  
 Delete another word?  
 What is the word to re  
 I have not in dictionary  
 Delete another word?

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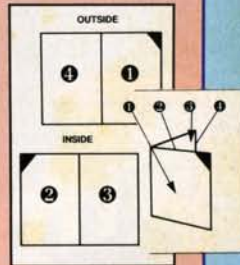
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```
M)sid
CP/M 3 SID - Version 3.0
Mra: jclllloco.ens
NEXT MSIZE PC END
A500 A500 0100 DAFF
#57aca
7ACA CD 3e
7ACB 13 c0
7ACC 07 0
7ACD D3 f1
?
#ua: jclllloco.ens
0148h record(s) written.
#tc
```



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PLEASE NOTE: EASY LABELLER is a purpose designed program and NOT a database adaption. The need to deal with disc files is NOT REQUIRED, THOUSANDS of satisfied customers, both experienced and first time users, have found EASY LABELLER invaluable for producing MAILING LISTS, TICKETS, CONTINUOUS ENVELOPE ADDRESSING as well as a QUICK and EASY filing system.



# THE TYPEWRITER STRIKES BACK



Remember that electric typewriter you used before you got your PCW? You might be able to print out from your PCW on it – Norman Hannan shows you how

**A** main discussion among users of the 8000 range of PCWs has always been the output quality of the printer. Some accept it happily; others don't. Most concede that although daisywheel printing may be slower and noisier it does enhance the appearance of the end-product. Hence LocoScript's provision of an increasing number of printer options. Hence, also, the launching of the 9512.

One option is to buy yourself a daisywheel printer for your 8000; another possibility is to link with an electronic typewriter which can then be used either for traditional typing or to take computer output, as best suits the work in hand. What's more, there must be many people left with now unused electronic typewriters after buying their PCW.

Hurdle number one is the interface. For starters you need a Centronics compatible parallel interface to attach to the back of the PCW (the Amstrad CPS8256 costs around £50 and includes a serial outlet). Also you need a cable with Centronics plug outlets at each end. This will be another £10 or so. The bad news is that at the other end of the cable you are likely to need another interface tailored to suit the typewriter and this may cost an arm and a leg.

Thus, Brother electronic typewriters are priced from £216 for the AX-20 to £448 for the CE-650 but the interface to go with either costs £224. Olivetti machines are £235 for the ET Compact60 and £270 for the ET Compact70 but with the interface a good deal cheaper at £123. Silver Reed typewriters EX30 at £245 and EZ30 at £345 need an interface priced at £156, but an interesting exception to the general rule is Silver Reed's EX36 priced at £335 where a Centronics compatible parallel interface and a spelling checker are thrown in free.

## Silver Reeds amongst the old

I came with nothing to lose, having bought a Silver Reed EX44 some years ago with its related IF44 interface, both now defunct. As I had also an Amstrad CPS8256 interface bought for another purpose, this meant if I could get the items working together I had a daisywheel printer almost ready for the launch pad.

Fortunately all you need do after getting hold of the bits and pieces is to put them together and watch them work. You will be luckier than I was if they do! Once the hardware is in position there are two main ways of making progress, either through LocoScript or through CP/M. Like many others I started and stayed with LocoScript because it was bundled with the PCW, and it suits me fine. But at first the

printer linkage refused to work – that was solved by a few calls to Locomotive's technical support line which is run between 2 and 4pm each day on 0306 740606.

The background is that Locomotive have worked hard to create a gradually increasing series of files which can drive many different printers. LocoScript 2.12 for example contains 21 of them. Unfortunately the information on which file to use with which printer hasn't permeated through to the High Street at all and even with the READ ME file on the LocoScript disc it still wasn't clear which file went with which printer.

## The answer's simpleb

As always, the answer was simple – eventually I discovered the printer file to use was SIMPLEB.PRI. With this loaded as per the booklet which came with the disc, a test file printed out perfectly... except that the typewriter moved up three at the end of each line instead of one.

These spurious new lines, or 'line feeds' are a common problem with external printers. Another phone call to LocoScript solved that one: inside the IF44 there was a small switch (called a DIP switch) set in the ON position. This was giving the extra line feeds – this is sometimes necessary to compensate for programs which don't send a line feed at the end of a line. As LocoScript sends all the line feeds it needs, the extra one was not required. All I had to do was set the switch to OFF, and the difficulty was overcome.

An initial approach can be made through CP/M using the DEVICE.COM utility on side 3 of the 8000 discs and then typing DEVICE LST:=CEN as soon as you start up. This is true to a point, but your CP/M program must be suitable. Word processors which work through CP/M include WordStar and Protext. In Protext, any commands for working alternative printers are met by codes set out in the system manual.

## IF...

For anyone who still has an EX44 or comparable typewriter, IF44 interfaces may just still be available from retailers at a clearance price of £66.

## Protext line

The makers of Protext, Amor, operate a telephone advisory service to aid those in trouble (0733 239011). Helpfully this operates from 5.30-7 pm (not Fridays) giving the benefit of cheaper rates!

This is typed on the AMSTRAD PCW8256 Printer Pitch 12

This is typed on the AMSTRAD PCW8256 Printer Pitch 15

This typing is Silver Reed Prestige Pica 10

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This typing is Silver Reed Mini Gothic 15



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BARCLAYCARD





# BEST FOOT FORWARD

One neglected literary form is the covering letter you send with your deathless manuscript. Thanks to industrial spies, I've secured several examples familiar to editors the world over. The challenge is to detect the subtle reason why in each case the recipient reached for his or her trusty rejection slip without finishing the covering note, let alone starting the manuscript. Match your wits against the professionals!

Dear Editor,  
What you're waiting for is a new idea to shake up the fuddy-duddy world of science fiction. Well here it is! Based on the mindbogglingly innovative concept of Earth being struck by a giant alien meteor with startling results, my novel *Lucifer's Footfall: The Forge of Earthdoom* is....

Dear Sir,  
I see you publish BASIC programs, so you'll love my enclosed poem *The Joy of Babbage*, an epic in nineteen thousand heroic couplets. Mrs Gilbey of our village Literary Circle thought it was VERY INTERESTING and I know you will need no more recommendation....

Sir,  
I cannot reveal my blockbuster plot to you as yet, since you would steal it and have it published under some house name by one of your tame hacks, thereby defrauding me of millions. I am on to the games of you "publishers". Before submitting the outline I want a firm contract guaranteeing a seven-figure advance and 110% of gross film rights. For the present I am not revealing my address - attempts to trace me and steal my notes will be useless. Kindly reply via the classified advertisement columns of....

Attention: Editor,  
*Revelations* chap. xiii contains the clue. We know it takes Halley's Comet 76 years to complete one orbit but are you aware that if you add 2000 AD to Ussher's 4004 BC and divide the total by 76 it goes exactly 79 times? Since 1988 is actually the year 2000 this shows that the Second Coming will occur

on 26 June. My manuscript conclusively proves....

Dear Mega-Ed,  
I was having this ace game of *Bludgeons and Blackguards* with my friend Irving when we realized the excitement of our role-playing campaign would make an incredibly triff novel! So here, based on that month of fun, is *Lepermage of Elfspasm*, a brilliant fantasy dekalogy in which a lovable crew of Elves, Dwarves, Cats, Boggits, Men and a token Voluptuous Nymph go up against the Dark Dread Force of Chaos Death Evil, which....

Darling Editor,  
I saw your picture in *The Bookseller* and at once knew we would become very close friends! I am 19 and very experienced. Perhaps we could have lunch together. Or breakfast. Of course I will be delighted to buy the meal! Don't you love champagne? Here is my photograph for you to keep. To fall in love sight unseen - it's like something from a mediaeval romance, isn't it? Speaking of which, I know you'd like a peep at the enclosed MS of my richly romantic historical novel, *I Was Edward II's Teenage Groupie*....

Hi, Editor,  
There's never been a novel like this! Imagine the excitement of a plot line in which all the past Dr Whos meet up with Darth Vader, Superman, Gandalf, Marvin the Paranoid Android, Indiana Jones, Crocodile Dundee, Captain Kirk and Spock, Snoopy, Judge Dredd, James Bond, E.T., Mickey Mouse, Rambo and Cecil Parkinson! I am sure you'll have no trouble sorting out copyright problems, and then....

Dear Idiot,  
Plees find enclosed my novvle, it is handwrote Im afraid but you will not mind this becuase GENIEUS cant be mistakken can it? No retern post enclosed sinse this will nott be nessary as you will See....

Dear Sir or Madam,  
The MS herewith is a very first draft. I could change almost anything on request. For example, in the slave bondage orgy scenes I am open to suggestions (your knowledge



*Wasted*  
A page 1  
in the company  
of author and  
PCW pundit  
David Langford

LANGFORD

must be so much greater than mine). Just say the word and I'll alter the lard to cod liver oil, or the protagonist's name to - well, it's a teensy bit obvious, should we tone it down to Steelram or Goatfetish? Also there are details about bestiality which need checking in the light of your mature experience. I'm willing to take advice on any point. Just send a fully detailed letter of instruction and comment, and....

Dear Skiffy Editor,  
This is a guaranteed SF best-seller - you don't even need to read it! My name will assure its success. I have the deed-poll documents all ready to fill in: the final decision is yours. Do you prefer Isaac Amizov, Alfred C. Clarke or Roberta Heinlein? I had also thought of H.G. Whelks, but do not think this would be such a good seller....

To Whom It May Concern:  
Not merely a work of

entertainment - my novel is MORE. Here in fictional guise are the truly shocking FACTS about the CONSPIRACY of scientists, theologians and armed librarians who CONTROL us. Intentionally I have given over six chapters to EXPOSING the jealously guarded truth about GRAVITY alone - not a pull as COMMUNISM would have you believe, but a PUSH! Unless you too are blind to reason or controlled by LASER SIGNALS broadcast from CHINESE UFOs, you cannot fail to....

Dear Gagged Lackey of the Thatcherite Junta,  
Your lickspittle rag won't dare publish this, but....

You see the common fault in all these? Not one of them addresses the editor correctly as, "O Mighty Being From Whose Fundament The Illumination Of The World Proceeds".



# THE PROFESSIONAL

Alec Rae rounds off our BASIC tutorial series

While the information given over the last couple of months of this JETSAM tutorial would be enough to let you write a perfectly acceptable database there are still those extra touches that really make your program look professional...

**S**ay you had the third address line in your database always used for the town and you wanted to sort out all the entries in the people in your address list from West Penge. This could be done, rather crudely, by loading each record in, one at a time as for an index (SEEKRANK and SEEKNEXT) and then using an IF statement to check the correct field (IF addr3\$="West Penge" THEN PRINT....).

But it is obviously much more impressive to add extra keyed fields to your files to allow you to sort the towns alphabetically, easily find all the times the town is listed, and even pull out individual entries by searching for the town.

This is achieved using ADDKEY, a process you can do at any time but is usually carried out just after you have added an entry using ADDREC. As you enter each record in this way it is given a record number – a number that you must

find out if you want to add a keyed field. You do this with the FETCHREC command, in a form something like  
 recno%=FETCHREC(1).

The other thing you have to decide is which rank the entry will go into. There are eight 'ranks' available in a Jetsam file (0 to 7) which act a bit like user groups in CP/M. You save keyed fields in different ranks so that they won't get mixed up. Normally the rank for the main keyed field is set at 0 so in this case we will make the town field go into rank 1. You can set it in a variable (rank%=1) so that you won't forget.

## The keys to

So immediately after using ADDREC we would write

```
2000 rank%=1:recno%=FETCHREC(1)
```

```
2010 error%=ADDKEY(1,2,rank%,addr3$,recno%)
```

The first two figures are the file number and the mysterious locking number. Also remember that before you can add a variable to a record it has to be LSET – set to the left of the field (see last month's article)

Then if you want to print out an index of all the towns on your list you just use SEEKRANK(1,2,1) – the final "1" being

```

10 IF FIND$( "*.dat" ) <> "" THEN 40                                08AD
20 INPUT "There are no database files on this disc. Do you want to start a new one?";y$ 2324
30 IF UPPER$(LEFT$(y$,1))="Y" THEN 100: ELSE END                      0EA6
40 PRINT "You have databases on the following subjects"              171C
50 FILES "*.fld":PRINT                                              0977
60 DIM dat$(11):INPUT "Do you want to use one of these, Y/N?"; y$ 1612
70 IF UPPER$(LEFT$(y$,1))="Y" THEN INPUT "What database?"; base$:ELSE GOTO 100 1B53
80 base$=base$+".fld":IF FIND$(base$)="" THEN PRINT "file not found":GOTO 70 1AA1
90 GOTO 500                                                         03C1
100 INPUT "What name for your new database :";name$                140F
110 namedat$=name$+".DAT":nameind$=name$+".IND"                     0DEC
120 IF LEN(name$)>8 THEN PRINT "too long":GOTO 100                  12A2
130 FOR x=1 TO 5: PRINT "Name for Field "x;:LINE INPUT field$(x):NEXT 191D
140 FOR x=1 TO 5: PRINT "Length for "field$(x)" field;:INPUT leng(x):tot=tot+leng(x):NEXT 219D
150 tot=tot+2                                                       051E
160 PRINT "Creating files for the " name$ " database"              12C5

```

```

170 CREATE 1,namedat$,nameind$,2,tot                                0E11
180 CLOSE                                                            0320
190 OPEN "O",1,name$+".FLD"                                          0678
200 FOR x=1 TO 5:PRINT #1, field$(x);";                             0BB1
210 NEXT                                                            032C
220 FOR x=1 TO 5:PRINT #1,leng(x);";                                 0BC4
230 NEXT                                                            0330
240 PRINT #1,tot                                                    05E3
250 CLOSE                                                            031E
500 IF name$="" THEN name$=LEFT$(base$,LEN(base$)-4)              10BD
510 OPEN "I",2,name$+".fld"                                          0665
520 FOR x=1 TO 5: INPUT #2, dat$(x)                                0AD2
530 field$(x)=dat$(x): NEXT                                          08B9
540 FOR x=6 TO 10: INPUT #2, dat$(x)                                0A62
550 leng(x-5)=VAL(dat$(x)): NEXT                                     0AC3
560 tot=VAL(dat$(11))                                              06FC

```

```

570 CLOSE                                                            0322
1010 MEMORY ...,256                                                04A6
1020 BUFFERS 10                                                    0523
1030 OPEN "K",1,name$+".DAT",name$+".IND",2,tot                    0C07
1040 FIELD 1,leng(1) AS f1$,leng(2) AS f2$,leng(3) AS f3$, leng(4) AS f4$,leng(5) AS f5$ 1AAB
1050 PRINT:PRINT:PRINT                                             0A16
1100 PRINT "                A - ADD A RECORD":PRINT               0BB6
1110 PRINT "                E - EXAMINE/DELETE RECORD DETAILS":PRINT 1321
1120 PRINT "                I - INDEX ":PRINT                      0935
1130 PRINT "                X - EXIT":PRINT                        092B
1140 PRINT:PRINT:                                                  06D7
1150 INPUT "ENTER OPTION - ";answer$: answer$=UPPER$(answer$)    16D0
1160 IF answer$ = "" THEN 1150                                       08D7
1170 answer$ = INSTR("AEIX",answer$):IF answer$ = 0 THEN 1150     1454
1180 ON answer$ GOTO 1500,2000,3000,4000,                          0B08
1500 PRINT field$(1)+";:LINE INPUT ques1$: IF ques1$ = "" THEN 1500 1644

```



# TOUCH

the new rank number. This will find the first record in the series and you can go through them using SEEKNEXT. Or, by using SEEKKEY, you could find the first example of West Penge in the records and browse through them using SEEKNEXT and SEEKPREV.

Again the rank number is included in SEEKKEY as the third digit (SEEKKEY (1,2,1,seek\$))

## Get It Right

Again if you have any corrections to any records in the old system you simply erased the old record and replaced it with a new one. But there are far more sophisticated ways of going about it.

In fact if you are not changing a keyed field it is remarkably simple. You just find the suitable record with SEEKKEY as usual and then use your normal data entry routine to enter the correct details, remembering to LSET all the information. But instead of using ADDREC you just need to use PUT #1 and the details will be changed.

Changing a keyed field is slightly more complicated using a couple of commands we've seen before. ADDKEY and DELKEY. In effect you are setting a new key and deleting

## At Last – the Database

In our first Jetsam article we gave the first part of a program that would produce any number of databases on one disc. Due to shortage of space last month we couldn't bring you the second exciting instalment so here is the full listing all in one go.

What it does is check the disc to see if you have any databases there. If there is it will let you choose one of them or start a new one. Each database has five fields. The program will ask you for the name for each field and then the maximum number of characters you want in each. The keyed field will be the first one you name.

It then creates the necessary files (none of this having to work out the maximum record length nonsense) and opens the database. You can press A to add a record, I for an index of the first field from every record or E to examine an individual record, called up by typing in the entry that should be in the

first field. In this section you also have the choice of erasing the record, so any corrections can be carried out by erasing a record and typing in the corrected version.

The program doesn't have any of the fancy features described in this month's article but if you are keen you could add them, or even change the number of fields by changing the number in the loop in lines 130 and 140 (FOR x=1 TO 7...for example). When you leave your chosen database with x, you are given the choice of opening another database.

Use it to keep a collection of birthdays, a telephone listing, your shopping – anything you want all on one disc.

The only slight problem for anyone who has typed in the first part already is that there are a few minor modifications from the original listing. Watch lines 50,60,80, 130 and 140 for slight differences.

the old. Again we need to call up the correct file and use FETCHREC to discover the correct file number.

Then you add the new key, remembering to use the same rank number as the field you are changing ADDKEY (#1,2,rank\$,newkey\$,recno%) and then immediately go on to delete the old key with DELKEY (#1,2,rank\$,addr3\$,recno%).

```

1520 PRINT field$(2)+"::":LINE INPUT ques2$: IF ques2$ = "" THEN 150 1624
1530 PRINT field$(3)+"::":LINE INPUT ques3$: IF ques3$ = "" THEN 1530 1669
1540 PRINT field$(4)+"::":LINE INPUT ques4$: IF ques4$ = "" THEN 1540 1679
1550 PRINT field$(5)+"::":LINE INPUT ques5$: IF ques5$ = "" THEN 1550 1689
1560 LSET f1$=ques1$: LSET f2$=ques2$: LSET f3$=ques3$: LSET f4$=ques4$: LSET f5$=ques5$ 1DC4
1570 PRINT : PRINT "Entry is being added" 0FB4
1580 result = ADDREC(1,2,1,f1$) 08CA
1590 result = CONSOLIDATE (1) 09DC
1600 INPUT "Do you want to add another name";y$ 11E2
1610 IF UPPER$(LEFT$(y$,1)) <> "Y" GOTO 1100: ELSE 1500 100F
2000 PRINT field$(1);TAB(20);LINE INPUT seek$ 1019
2010 result = SEEKKEY(1,2,1,seek$) 0B30
2020 IF result=103 THEN error$="NOT FOUND":GOTO 9000 13C6
2030 GET 1 0265
2040 PRINT field$(2);TAB(20);f2$ 0A13
2050 PRINT field$(3);TAB(20);f3$ 0A1A

```

```

2060 PRINT field$(4);TAB(20);f4$ 0A21
2070 PRINT field$(5);TAB(20);f5$ 0A28
2080 INPUT "Do you want to delete this file";y$ 120B
2090 IF UPPER$(LEFT$(y$,1)) <> "Y" GOTO 1100 0CD4
2100 PRINT:PRINT "Record is being deleted" 1091
2110 result = DELKEY(1,0) 07AA
2120 IF result > 103 THEN error$ = "DELETE FAILURE":GOTO 9000 168D
2130 result = CONSOLIDATE (1) 09C3
2140 GOTO 1100 03AD
3000 line$ = SPACE$(70) 06B6
3010 s = 0 025A
3020 result = SEEKRANK(1,0,0) 0983
3030 GET 1 0266
3040 s = s+1 0292
3050 IF s = 1 THEN MID$(line$,3,20) = f1$ 0A8D
3060 IF s = 2 THEN MID$(line$,28,20) = f1$ 0B18

```

```

3070 IF s = 3 THEN MID$(line$,53,20) = f1$ 0B10
3080 IF s = 3 THEN PRINT line$ 09AC
3090 IF s = 3 THEN line$ = SPACE$(80) 0A46
3100 IF s = 3 THEN s = 0 05EF
3110 result = SEEKNEXT(1,2) 0967
3120 IF result < 102 THEN 3030 099D
3130 PRINT line$: PRINT 0A32
3140 PRINT TAB (18) "ENTER ANY KEY TO CONTINUE" 10E1
3150 IF INKEY$ = "" THEN 3150 0818
3160 PRINT:GOTO 1100 072B
4000 CLOSE 1: CLEAR 05BF
4010 INPUT "Do you want another database";y$: IF UPPER$(LEFT$(y$,1))="Y" THEN 50: ELSE END 1F2F
9000 PRINT TAB (18);error$ 08DB
9020 PRINT TAB (18) "ENTER ANY KEY TO CONTINUE" 10DF
9030 IF INKEY$ = "" THEN 9030 0838
9040 PRINT:GOTO 1100 0729

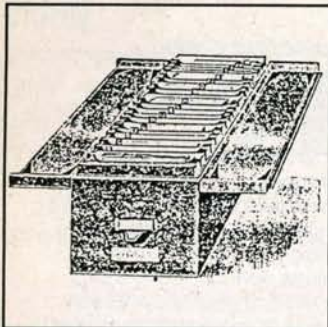
```

## Only One Will Do

It is often worthwhile making sure that your keyed field is unique. This avoids duplicating entries or records getting confused because they have the same name. Normally duplicates are allowed but you can use the command RANKSPEC(1,2,1). The first couple of numbers are our old favourites, file number and locking number, but the third – (1) – actually sets the file not to accept duplicates. If you want to reverse this later in the program just enter RANKSPEC(1,2,0) and duplicates will be allowed.



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# OUT OF YOUR MIND

Tony Flanagan psyches up and projects himself into the future with Abstract Concepts' new adventure

## MINDFIGHTER

£24.99 ● Abstract Concepts/Activision (01 431 1101) ● All PCWs

After a two month sojourn around the remoter watering holes of Wagga Wagga, and finding myself mistakenly betrothed to a high-cheeked aboriginal princess in the shape of Zu Wapa-Tui (trans. 'She of the flaming nostrils'), I returned to the relative normality of my PCW only to be thrown into a paroxysm of despair.

And no wonder – from high romance to apocalyptic desolation in the form of Mindfighter, an adventure game which some well-meaning editor had plonked on my desk.

The game is set in post-holocaust Southampton which, not surprisingly, shares many similarities with the Southampton of today – dog-beating, public decapitation, the usual thing.

But there's more to the game than a simple trek through a radioactive wonderland. It helps if you read the one-hundred-and-fifty page book that accompanies the game.

## Rat man and Robin

You see, there's this eleven year old kid called Robin who happens to be amazingly psychic, so much so that not only can he metamorphose into eagles, rats and other non-human forms but can project himself into the future. Almost by accident he finds himself in a Britain of the future in which, after a nuclear blitz, the System (the Chinese no less!) tyrannize over the starving residue of Southampton's trillions whose one redeeming feature is their ability to glow in the dark. Under the guidance of Professor Fergere, his mentor, it is Robin's task to 'change the future by preventing nuclear war'. How civilised.

The book simply abounds with such immortal lines as 'It was the anniversary of the day Nick had raped Alison's mother' (I hope he sent her a card), or 'I'll save the world, trust me' (What, an eleven year old squirt?). Fortunately, the game itself is a little more convincing.

The atmosphere is very strong and this is partly conveyed by the text and partly by the graphics. The latter appear and disappear like the bars on a Venetian blind and are both unusual and effective. The scenes depict a landscape totally ravaged by nuclear war – dark silhouettes of ruined buildings, streets crammed with the dead and dying, a disconcerting silence throughout.

As Robin, you wander the streets picking up useful objects along the way and aware that one of the System guards, led by the cruel Yabushi (now haven't I got one of his hi-fis?), might attack you at any moment. You can retaliate of course, but being an eleven year old sapling your chances of victory are slim.

## Chinese takeaway

As you explore this dying world, you will come upon the bodies of your psychic friends such as the innocent and vulnerable Alison Whitley. Fortunately, there are some less moribund characters around, such as journo Jimmy or James as he preferred to be called in his previous incarnation as headline writer for the Sun. Now it seems, he's the leader of an underground resistance movement the



central tenet of which – Chop the Chinks! – was penned by himself alone without any help from Derek Jameson at all.

As well as keeping Robin fed and watered – he's rather partial to decomposing dog and radioactive rainwater – you must also keep him happy. If you look at your score, you'll see a brief description of Robin's emotional state, such as sad, sad...or sad. No wonder! How would you feel if every time you put a comb through your hair your wig falls off.

In addition to the usual commands, such as INVENTORY, EXAMINE and so on, an icon system for loading, saving, printing (amongst other features) accompanies the main game and can be accessed simply by pressing RETURN. The text can be read in brief or verbose mode and the pictures can be turned off if you get tired of them. As with many adventure games these days, there is an OOPS facility allowing you to retrace your previous (usually fatal) moves. Let me assure you, you'll need it!

Unfortunately, some of the responses in the game are a little unimaginative – YOU CAN'T DO THAT, for example, gets a little monotonous after a while. Still, the game is strong on atmosphere and, as you might expect, there is an array of problems which should keep you baffled well into the inevitable holocaust itself.



## PROTEXT OFFICE

### PLUSES

- ▲ Strong on atmosphere
- ▲ Unusual but atmospheric graphics
- ▲ Good scenario

### MINUSES

- ▼ Responses can be a little monotonous
- ▼ Robin dies very easily

ATMOSPHERE  
INTERACTION

5/5  
3/5

CHALLENGE  
VALUE VERDICT

5/5  
4/5

8000 PLUS VALUE VERDICT 4/5



# BETTER THAN AVERAGE

It's the end of the cricket season: averages time. Rob Ainsley (RHB, RM) looks at two programs that could save your scorer a few headaches...

Cricket being a game full of statistics, it's no surprise that you can use your PCW to work out all the boring things like averages. It's quite easy to write your own club statistics manager in a spreadsheet, database, or even in BASIC. But do you have the time?

Fortunately, some kind souls will let you have the fruits of their labour for little more than a blank disc.

## AVERAGES

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● Stephen Fearnley (88 Abingdon Rd, Drayton, Abingdon OX14 4HT) ● All PCWs

Averages lets you enter the match-by-match details for your club through the season and will work out the batting and bowling averages for you. It's a well put together, fast and easy to use program that will prove invaluable for any PCW owning cricket clubs.

It works by commands ('E' to enter details of a new game or edit a previous one, 'D' to delete, 'L' to list matches so far etc.). You enter the details for each match, either at the time or in a batch at the end of the season. You enter details of

opponents, batting and bowling details, and result.

There are a lot of nice touches. New names are spotted by the program and you can add them to the player list (or amend them if they've just been mistyped). You enter details of how each batsperson was out with a single keypress ('B' automatically prints 'bowled' to the screen, 'N' not out and so on). Team

Averages for Future All Stars using: SEASON88.DAT  
Batsman date: 22/8 28/8 1/9 5/9 7/9 9/9 runs Average

R. Ainsley	226*	38	143	19	266	52	744	148.80
A. Rae				16	103*		119	119.00
K. Bale	55	29*		0*	100		184	92.00
B. Taylor	103	19	184*	16	102	0	424	84.80
S. Williams	21	11	80*	4	213*	4	333	83.25
S. Bradley	0				21*		21	21.00
C. Anderson						16	16	8.00
A. Storer	11	0		3*			14	7.00
S. Meddings						7	7	7.00
R. Monteiro	8	7		0		8	23	5.75
J. Riding	0	3		8		2	13	3.25
J. Beales	3	0		1		4	8	2.00
C. Riding	0	3		0		1	4	1.00

Averages for Future All Stars using: SEASON88.DAT  
Bowlers date: 22/8 28/8 1/9 5/9 7/9 9/9 wks Average

S. Williams	34/7				12/2		9	5.11
A. Rae					32/3	31/4	7	9.00
R. Ainsley	16/3		19/2	16/1	43/5	26/0	11	10.91

Match on 22/8 Future All Stars opponents England

Batsman	Runs	Wicket	Score	Bowler	Runs	Wicket	Average
Ainsley	226	B	266	R. Ainsley	16	3	8.00
Rae	103	B	102	A. Rae	7	3	9.00
Bale	55	B	100	S. Williams	12	2	5.11
Taylor	103	B	102				
Williams	21	B	21				
Bradley	0	Not Out					

Extras: 32 Total: 734 Extras: 1  
Total: 400 Total: 188

totals for you and the opposition (based on bowling runs conceded plus extras) are worked out and you can check them against the total in the scorebook.

Matches for a season are stored on disc together, and at any time you can get a list of the batting and bowling averages to screen or printer, automatically sorted into order for you, with match-by-match performances for the season. You can go back and edit match cards when someone moans that their top score of six not out versus Marks & Spencer's II was overlooked, produce an amended average list in seconds, and keep all your members happy.

There are a couple of slight quirks in the layout of the printed results, but these should be ironed out in the latest version.

The program does nothing you couldn't set up for yourself on a spreadsheet or database – the great thing is though it comes already set up for the purpose, is quick and dead simple to use, and will save any hard-pressed club scorer hours of mind-numbing calculations.

## AVERAGES

8000 PLUS VALUE VERDICT 5/5

## SPARTAN AVERAGES

£11 ● Spartan Sports Association (29, Feltham Ave, East Molesley, Surrey KT8 9BJ) ● All PCWs

Spartan Averages is a simple cricket statistics database with a slightly different purpose to the program above. You give each player's figures for the season overall – total runs scored, total wickets taken etc., and it works out the seasonal average but also compiles a running career average. It's an easy to use program, run from within BASIC.

Players can be 'archived', ie. temporarily removed from the averages if they miss a season (if they're on County duty, for example). The program works by a central menu and lets you view player lists, bowling and batting averages automatically sorted into order for the season or for careers so far. You can also print out the lists if you want a permanent record.

It's not quite as fast as 'Averages', being written in

BASIC rather than a compiled language, and requires you to have already totalled each player's wickets and runs for the season. However, unlike 'Averages' it keeps career records, so with the two programs you get the best of both worlds. The method of updating a player's figures isn't quite obvious on first trying, but the accompanying leaflet tells you how it's done.

Catches can be totalled as well, and when displaying averages you have the convenient option of listing only bowlers with an average of less than 25.00, say, or only batting averages greater than 10.00.

Spartan Averages is another program you could write yourself, given a few free weekends – but coming already set up for the job it will save your club scorer plenty of time and effort.

## SPARTAN AVERAGES

8000 PLUS VALUE VERDICT 4/5





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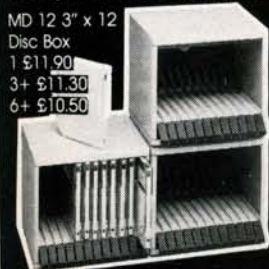
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# LISTINGS

Original games and assembler programs – what more could a BASIC buff ask for?

## ETHERNET

by Tim Barnes

In line with a long standing tradition of printing games with silly names here is Ethernet. You will notice various similarities between this and the Odiosum listing from our June edition.

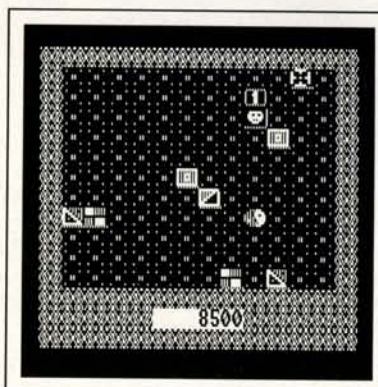
The first part is again a character redefiner (first seen in December last year to produce a hand-writing type font) which changes the screen appearance of the characters. You could EDIT a few lines in the December listing or the Odiosum screen set-up if you still have it, to make the redefinition section here.

This time it is used to change some of the more obscure characters into ingenious symbols to be used for the game, for instance a little skull. Remember that these letters will stay until

you reset your machine.

The game comes in two distinct programs. Type in the first one (listed on page 60) and save it under a name like "SETUP". Type in the second one and call it "ETHERNET". Then run "SETUP". It will redefine the characters and in the last line it will run the program "ETHERNET" – see line 210. Once the characters are defined you don't need to run "SETUP" again until the machine is reset.

Mr Barnes claims that unlike some of the other games we have been publishing recently this one is new and original. You are represented on a 12 by 11 grid by what looks remarkably like the Taoist Yin-Yang sign. The idea is to stay alive while surrounded by an increasing number of menacing symbols including a skull, which admittedly looks a bit



like one of those happy faces signs that used to be so popular.

Using the cursor keys you can move in a straight line in any one direction. You can even move off the edge of the screen – you will reappear at the opposite side. If you don't want to move just press [RETURN]. The symbols appear and move on the screen around you (to a set pattern which you could work out if you

were keen) until the whole things get a bit crowded. You can score by landing on a square with treasure (little numbers or diamonds) or by killing one of the killers. You have to avoid being landed on by a killer or ending up in a square adjacent to the skull. The other opportunity you have is to push one of the slaves. You'll get the idea as you play it. It can be quite compulsive. ■

```

10 DEF FNxy$(x,y)=CHR$(27)+"Y"+CHR$(41+y)+CHR$(60+x*2):WIDTH 255
20 n$=CHR$(0)+CHR$(5)+STRING$(3,2)+STRING$(2,3)+CHR$(4)+STRING$(3,6)+STRING$(3,7)
30 n$=n$+STRING$(3,9)+STRING$(3,10)+STRING$(3,11)+STRING$(3,12)
40 DIM m(12):m(6)=5:m(7)=5:m(9)=3:m(10)=3:m(11)=7:m(12)=7
50 DIM s(99,2):DIM b(13,13):DIM c$(12)
60 PRINT CHR$(27);"E";CHR$(27);"0";CHR$(27);"f":b$=CHR$(186)+CHR$(187)
70 bb$=STRING$(28,186):rv$=CHR$(27)+"p":nv$=CHR$(27)+"q"
80 FOR z=160 TO 184 STEP 2:c$((z-160)/2)=CHR$(z)+CHR$(z+1):NEXT z:GOSUB 90:GOTO 200
90 FOR x=1 TO 12:FOR y=1 TO 11:b(x,y)=0:PRINT FNxy$(x,y);c$(b(x,y)):NEXT y:NEXT x
100 PRINT FNxy$(0,0);bb$;FNxy$(0,12);bb$;FNxy$(0,14);bb$
110 FOR z=0 TO 13:b(0,z)=99:b(13,z)=99:b(z,0)=99:b(z,12)=99
120 PRINT FNxy$(0,z);b$;FNxy$(13,z);b$:NEXT z:RETURN
130 x=INT(RND*12)+1:y=INT(RND*11)+1:IF b(x,y)<>0 THEN 130 ELSE RETURN

```

```

140 FOR i=0 TO add-1:IF z<>i AND s(i,1)=ia AND s(i,2)=ib THEN 160
150 NEXT i:RETURN
160 FOR s=i TO add-1:s(s,1)=s(s+1,1):s(s,2)=s(s+1,2):NEXT s:add=add-1:RETURN
170 PRINT FNxy$(5,13);:PRINT rv$;USING "#####";sc;:PRINT nv$:RETURN
180 GOSUB 130:IF ABS(x-p)<2 AND ABS(y-q)<2 THEN 180
190 f=x:g=y:b(f,g)=8:PRINT FNxy$(f,g);c$(8):RETURN
200 m$="" * Collect prizes "+c$(2)+c$(3)+c$(4)+" AND "+c$(5)+" "
210 m$=m$+"Wipe out killers "+c$(10)+c$(9)+c$(6)+c$(7)+" * Avoid the skull "+c$(8)+" * "
220 m$=m$+"Push slaves "+c$(11)+c$(12)+" * [ENTER] to pass * * * [SPACE] to start "
230 r=r+7:k$=INKEY$:PRINT FNxy$(0,13);LEFT$(m$,28):FOR t=1 TO 70:NEXT
240 m$=RIGHT$(m$,LEN(m$)-1)+LEFT$(m$,1)
250 IF k$<>" " THEN 230 ELSE RANDOMIZE r:FOR z=0 TO 13:PRINT FNxy$(z,13);b$:NEXT z
260 sc=0:add=0:GOSUB 90:GOSUB 130:b(x,y)=1:p=x:q=y:PRINT FNxy$(x,y);c$(1):GOSUB 180

```



```

270 IF b(f,g)<>8 THEN sc=sc-5000*(b(f,g)>10):GOSUB 180:GOSUB 170
280 n=INT(RND*26)+1:GOSUB 130:b(x,y)=ASC(MID$(n$,n,1))
290 PRINT FNxy$(x,y);c$(b(x,y)):IF RND>0.8 THEN 280
300 IF b(x,y)>5 AND b(x,y)<11 THEN s(ADD,1)=x:s(ADD,2)=y:ADD=ADD+1
310 k1$=INKEY$:IF k1$="" THEN 310 ELSE IF k1$=CHR$(13) THEN 400 ELSE k$=k1$:GOTO 330
320 k$=INKEY$:IF k$=CHR$(13) THEN 400 ELSE IF k$<>k1$ THEN 320
330 p1=p:q1=q:p=p+(k$=CHR$(1))- (k$=CHR$(6)):q=q+(k$=CHR$(31))- (k$=CHR$(30))
340 IF p=0 THEN p=12 ELSE IF p=13 THEN p=1 ELSE IF q=0 THEN q=11 ELSE IF q=12 THEN q=1
350 PRINT FNxy$(p1,q1);c$(0);FNxy$(p,q);c$(1):cc=b(p,q)
360 IF cc>1 AND cc<6 THEN sc=sc+1000*(cc-1)-3500*(cc=5):GOSUB 170
370 IF cc>5 AND cc<11 THEN ia=p:ib=q:z=-99:GOSUB 140:sc=sc-250*(cc=9 OR cc=10)-400*(cc=6 OR cc=7):GOSUB 170

```

235A

```

380 IF cc>10 THEN GOSUB 720:b(p1,q1)=0:b(p,q)=1:PRINT FNxy$(p,q);c$(1):IF cc>1 THEN 270 ELSE 400
390 b(p1,q1)=0:b(p,q)=1:PRINT FNxy$(p,q);c$(1):IF cc=0 THEN GOTO 320
400 IF RND>0.5 THEN GOSUB 450:GOSUB 460:GOTO 420
410 GOSUB 460:GOSUB 450
420 IF f1<>f OR g1<>g THEN 430 ELSE 500
430 IF f1<>f AND g1<>g THEN IF RND>0.5 THEN g1=g ELSE f1=f
440 GOTO 470
450 IF b(f,q)=0 THEN f1=f:g1=q:RETURN
460 IF b(p,g)=0 THEN f1=p:g1=g:RETURN
470 df=SGN(f1-f):dg=SGN(g1-g):b(f,g)=0:IF (df<>0 AND dg<>0) THEN IF RND>0.5 THEN df=0 ELSE dg=0

```

1DF3

```

480 WHILE (f<>f1 OR g<>g1) AND b(f+df,g+dg)=0
490 PRINT FNxy$(f,g);c$(b(f,g)):f=f+df:g=g+dg:PRINT FNxy$(f,g);c$(8):WEND
500 b(f,g)=8:IF ABS(f-p)<2 AND ABS(g-q)<2 THEN 790
510 FOR z=0 TO add-1
520 a=s(z,1):b=s(z,2):c=b(a,b)
530 IF c=9 OR c=10 THEN GOSUB 570
540 IF c=6 OR c=7 THEN GOSUB 690
550 s(z,1)=a:s(z,2)=b:IF b(p,q)<>1 THEN 790
560 FOR t=1 TO 300:NEXT t:NEXT z:GOTO 270
570 IF RND>0.5 THEN da=1 ELSE da=-1
580 IF c=10 THEN db=da ELSE db=-da
590 cc=-99:FOR k=1 TO m(c):FOR t=1 TO time:NEXT t:PRINT FNxy$(p,q);c$(1)
600 b(a,b)=0:a1=a:b1=b
610 IF c<11 THEN 640
620 IF a+da<1 THEN a=13 ELSE IF a+da>12 THEN a=0 ELSE IF b+db<1 THEN b=12 ELSE IF b+db>11 THEN b=0

```

0DC7

19F7

0F95

0667

084E

0A35

09F9

0D8E

0F86

0AE4

0B6C

1AE1

063C

061C

1F04

```

630 GOTO 660
640 IF b+db<1 OR b+db>11 THEN db=-db
650 IF a+da<1 OR a+da>12 THEN da=-da
660 a=a+da:b=b+db:IF b(a,b)<>0 THEN GOSUB 740
670 s(z,1)=a:s(z,2)=b:b(a,b)=c:PRINT FNxy$(a,b);c$(b(a,b));FNxy$(a1,b1);c$(0)
680 NEXT k:RETURN
690 IF RND>0.5 THEN x=-1 ELSE x=1
700 da=0:db=0:IF RND>0.5 THEN da=x ELSE db=x
710 GOTO 590
720 da=0:db=0:IF k$=CHR$(1) THEN da=-1 ELSE IF k$=CHR$(6) THEN da=1 ELSE IF k$=CHR$(30) THEN db=1 ELSE db=-1

```

03A7

0B09

0AFF

0EDB

17C4

073F

0AA6

0F06

03A9

2175

```

730 a=p:b=q:c=cc:z=99:PRINT FNxy$(p,q);c$(1):b(p,q)=1:b(p1,q1)=0:GOTO 590
740 cc=b(a,b):IF c<6 THEN RETURN
750 IF cc=1 THEN k=99:RETURN
760 IF c>10 THEN sc=sc-500*(cc=9 OR cc=10)-800*(cc=6 OR cc=7)-(1000*(cc=1)-3500*(cc=5))*(cc>1 AND cc<6):GOSUB 170

```

18B2

0B45

0A02

208B

```

770 k=99:IF cc>5 AND cc<11 THEN ia=a:ib=b:GOSUB 140:RETURN
780 IF b(a,b)<>8 THEN b(a,b)=c:RETURN
790 PRINT FNxy$(0,14);rv$;"      G A M E   O V E R      ";nv$;
800 PRINT FNxy$(5,12);rv$;USING "#####";sc;:PRINT nv$:GOTO 200

```

157D

0C52

0DDA

14AC



# MACHINE CODE IN BASIC

by David Stock

**H**ere is definitely the most painless method of writing machine code routines. This simple program allows you to produce .COM files simply by following the prompts of a BASIC program.

What these new .COM programs do is to print whatever escape codes or text you want to the screen. Escape codes are those clever things that allow you to clear or reverse the screen, disable the cursor or switch to reverse video. They fill several pages of the CP/M manual and usually are written as something like ESC E (that one clears the screen). In BASIC you would write the same thing `PRINT CHR$(27)+"E"`, the sort of thing you see regularly in listings.

If you wanted a .COM file to reverse the screen (black on green) this is achieved by typing in `PRINT CHR$(27)+"c"+CHR$(8)` in BASIC. But it is a nuisance to always have to go into BASIC. Instead you can create a .COM file

and run it in CP/M every time you want black on green.

Run the BASIC program and it will ask you for a name. For screen reverse it would be sensible to call it something like LIGHT. When it says "Enter command" type in 27 for `CHR$(27)` or ESC – the first part of the command – and press [RETURN]. At the next prompt enter c (remember it has to be lower case ie. not a capital C) [RETURN]. At the third prompt you enter 8.

You could even go on to enter some text. At the fourth prompt add `$That's it reversed#` (the \$ tells the program to expect text rather than an escape code and the # tells it that the text is finished). So when you run your .COM file the words will be printed on screen, in

case you haven't noticed that the screen has changed colour. You can have up to 253 characters (including spaces) here. You would also use the \$ to introduce a number normally get in brackets.

When you have finished entering your requirements just press [RETURN] and you will be asked you if you have got it right. Assuming you have, press Y and a program under the name LIGHT.COM will be created on the M drive. This can be run just by typing in the file name, in this case `M:LIGHT`. Remember to save the file to disc using PIP before you switch off.

Once you have the idea of how to use the program you can cut the instructions by deleting lines 230 to the end, of course.

## LIGHT.COM

Precede numbers in parenthesis and strings with the dollar sign e.g. "0" = \$0  
Use the hash sign '#' to end a line of text (line feed): Amstrad PCW = \$Amstrad PCW

```
Enter commands as this example to clear screen:
Enter command No. 1 ? 27 [RETURN]
Enter command No. 2 ? H [RETURN]
Enter command No. 3 ? 27 [RETURN]
Enter command No. 4 ? E [RETURN]
Enter command No. 5 ? [RETURN] (to close file)

Enter command No. 1 ? 27
Enter command No. 2 ? c
Enter command No. 3 ? 8
Enter command No. 4 ? $This is reversed#
Enter command No. 5 ?
```

Is this correct ? ■

```
10 CLEAR:OPTION RUN:OPTION FILES "M":ON ERROR GOTO 280
20 cls$=CHR$(27)+"E"+CHR$(27)+"H":PRINT cls$
30 INPUT "Name of new COM file (or RETURN to exit prog) ";file$
40 IF file$="" THEN END ELSE file$=UPPER$(file$)+".COM":PRINT cls$;file$:PRINT
50 OPEN "O",1,file$:FOR a=1 TO 9:READ dat:PRINT #1,CHR$(dat);:NEXT
60 FOR a=0 TO 7:READ a$(a):NEXT
70 PRINT a$(0);CHR$(34)+"0"+CHR$(34);" = $0":PRINT TAB(62);"Amstrad PCW = $Amstrad PCW"
80 PRINT a$(7):PRINT:FOR a=1 TO 6:PRINT a$(a):NEXT:PRINT
90 x=x+1:PRINT "Enter command No. ";x;
100 INPUT " ";com$:IF com$="" THEN PRINT #1,CHR$(36);:CLOSE 1:GOTO 150
110 IF RIGHT$(com$,1)="#" THEN com$=LEFT$(com$,LEN(com$)-1)+CHR$(13)+CHR$(10)
120 IF ASC(com$)=36 THEN com$=RIGHT$(com$,LEN(com$)-1):GOTO 140
130 com$=VAL(com$):IF com$="0" OR com$>0 THEN com$=CHR$(com)
140 PRINT #1,com$;:GOTO 90
150 PRINT:PRINT"Is this correct ? ";
```

156F  
0CC6  
1872  
1EAE  
175F  
0AE0  
1B36  
154F  
0F53  
1770  
173C  
152E  
1248  
0916  
0E34

```
160 an$="":WHILE an$<>"Y" AND an$<>"N":an$=UPPER$(INKEY$):WEND
170 PRINT an$:IF an$<>"Y" THEN CLOSE 1:GOTO 10
180 PRINT:PRINT "The new file ";file$;" has been saved on drive 'M':END
190 DATA 14,9,17,9,1,205,5,0,201
200 DATA "Precede numbers in parenthesis and strings with the dollar sign e.g. "
210 DATA "Enter commands as this example to clear screen:"
220 DATA "Enter command No. 1 ? 27 [RETURN]"
230 DATA "Enter command No. 2 ? H [RETURN]"
240 DATA "Enter command No. 3 ? 27 [RETURN]"
250 DATA "Enter command No. 4 ? E [RETURN]"
260 DATA "Enter command No. 5 ? [RETURN] (to close file)"
270 DATA "Use the hash sign '#' to end a line of text (line feed):"
280 CLOSE 1:PRINT:PRINT"ERROR No. ";ERR: IF ERR <>13 THEN END
290 PRINT"You have probably tried to enter a string without using the dollar sign.":END
```

147F  
0E50  
19DD  
0715  
2036  
1786  
0FAE  
1144  
0FB8  
113F  
153D  
17DF  
17E5  
2564



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## Gremlins Corner

Well it's been so long since our last lot of mistakes in Listings Plus, we were due a good one. The Designer program last month got mangled because of the difference between screen and printer character set.

Everyone knows you can print characters like \$ and 1/2 on screen, but when you try to print them out you instead get an & and a vague squiggle. Unfortunately we forgot this, a bit, when we printed out the listing. Sorry.

Anyway it should have read 90 num=INSTR ("></\_@) ... and so on as before. In the same way all the &s in line 270 should have been \$s.

It might be a bit late but there was also a slight hiccup in line 50050 of the Plot Routine where it should read "Error in Line";10(F+5012). This won't affect the running of the program but might help if your still looking for mistakes.

## How to type in a listing

Load up Mallard BASIC – to do that, insert your CP/M disc, reset the machine and at the A> prompt type BASIC[RETURN]. Now you see the 'Ok' prompt. Just type in the lines of the listing exactly as they are printed on the page (but not the numbers on the extreme right). Type LIST at any time to print out your typing so far to the screen; if you want a printout to pore over, type LLIST.

Mistakes made before you press RETURN can be corrected with the DEL keys, otherwise you have to use the line editor. Suppose you've made a mistake in line 100; type EDIT 100 and then you can use the cursor keys and DEL keys to correct it. Press RETURN when the line is OK. To delete a whole line, type its number only and press RETURN.

When you've finished, save the program to a disc by the command SAVE "FRED (or any other suitable name of eight letters or less). To run the program, type RUN.

Programs rarely run first time, but when BASIC encounters a mistake it tells you where it is. 'Syntax Error in line 60' means a mistake in that line (though the actual typing error may have occurred in a previous line, causing problems in this one). Other error messages can often occur too. Use the EDIT command to correct it.

You can rerun the program another day by loading BASIC up as before and, with the disc on which you saved the program in the drive, typing LOAD "FRED and then RUN.

```
10 INPUT "Program name ",prog$: IF INSTR(prog$,".") = 0 THEN
prog$=prog$+".bas"
20 IF FIND$(prog$)="" THEN PRINT "Program not found" : PRINT : GOTO
10
30 LPRINT CHR$(15);CHR$(27);"W1";
40 LPRINT "Checksum listing of file ";UPPER$(prog$); " for 8000-
PLUS"
50 LPRINT CHR$(27);"W0"
60 OPEN "I",1,prog$
70 WHILE NOT EOF(1)
80 LINE INPUT #1,z$
90 y$=UPPER$(z$)
100 check%=0 : j%=0
110 FOR i% = 1 TO LEN(y$)
120 y%=ASC(MID$(y$,i%,1)) : IF y%=32 GOTO 200
130 IF y% <> &HFC GOTO 180
140 PRINT "Error - Program was not saved in ASCII mode" : PRINT
150 PRINT "Do the following...","LOAD ";CHR$(34);prog$
160 PRINT ",,"SAVE ";CHR$(34);prog$;CHR$(34);",,"A" : PRINT
170 PRINT "and run the checksum program again" : PRINT : GOTO 230
180 j% = j% + 1
190 check% = check% + (y%-32) * (j% MOD 7) +1
200 NEXT
210 LPRINT z$;TAB(120);HEX$(check%,4)
220 WEND
230 CLOSE 1 : LPRINT CHR$(18);CHR$(12);
240 END
```

**N**ewer readers may wonder what these mysterious numbers are that we put at the end of the lines. These relate to an ingenious checking program sent in by reader Adrian Wilkins to help you check that you have typed in your listing correctly. And for anyone wanting to take advantage of this invaluable service we are reprinting the listing.

What this program does is look at your listing and print out a code at the end of each line. Check this code with the code in the magazine and if they differ look closely at that line for your mistake.

Of course you have to get this program running without the benefit of this high technology. But once you have it running successfully you can use it to check any listing. The only thing you have to remember is to save your listing in ASCII form: where you would normally type SAVE "PROG" to save it, type SAVE "PROG",A instead.

Then run the Checker program. When it asks for the filename enter the name of your listing saved in ASCII form. It then prints out the listing with the numbers. Before you can make any changes to the listing you will have to load it in the normal way – LOAD "filename" and make your changes.

## Setup

This is the first listing that has to be run to reconfigure the characters before you can play the game Ethernet. Run this once before you play the game and it will automatically call up the main program.

```
10 MEMORY &HBFFE: FOR h=&HC070 TO &HC098:READ p:POKE h,p:NEXT
20 FOR c=160 TO 187:POKE &HC099,c
30 FOR r=1 TO 8:READ binary(r):POKE &HC099+r,(binary(r)):NEXT r
40 cl=&HC070:CALL cl:NEXT c
50 DATA 243,62,129,211,241,62,130,211,242,175,95,103,22,184,58,153,192,111,41,41
60 DATA 41,25,17,154,192,235,1,8,0,237,176,62,133,211,241,62,134,211,242,251,201
70 DATA 0,32,0,2,2,0,32,0,0,8,0,128,128,0,8,0
80 DATA 10,41,169,170,186,42,10,0,240,252,206,254,126,188,240,0
90 DATA 85,131,135,131,131,131,85,0,84,130,130,130,130,130,84,0
100 DATA 85,143,156,129,135,159,85,0,84,226,114,226,130,242,84,0
```

15FD  
0AE9  
179F  
0872  
1103  
1112  
09CF  
0DE0  
0D7A  
0E5C

```
110 DATA 85,143,156,129,156,143,85,0,84,226,114,226,114,226,84,0
120 DATA 3,15,58,251,58,15,3,170,129,225,185,191,185,225,129,170
130 DATA 31,195,192,243,192,195,31,85,224,12,12,60,12,12,224,85
140 DATA 249,225,7,86,7,225,249,85,62,14,192,212,192,14,62,85
150 DATA 0,31,57,63,29,7,0,170,1,241,153,249,113,193,1,170
160 DATA 229,249,206,195,200,192,255,85,84,68,84,148,228,56,252,85
170 DATA 255,213,213,215,220,240,255,85,252,118,198,6,6,6,254,85
180 DATA 253,253,253,0,169,169,169,85,84,84,84,0,252,252,252,85
190 DATA 255,213,215,214,215,213,255,85,254,86,214,214,214,86,254,85
200 DATA 153,36,90,169,149,90,36,90,90,36,90,149,169,90,36,153
210 CHAIN "ethernet"
```

0E70  
0E80  
0E1D  
0DA9  
0D04  
0E7B  
0ED1  
0E80  
0F3A  
0E45  
06BA



[illegible]



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E & OE





## Going num

Here is a solution to Mr Coffin's problem (PostScript, July 88) of selecting numeric lock from within a BASIC program (usually you press [ALT][ENTER] to select or deselect it. In numeric lock, all letters come out as capitals and all numbers as numbers). The four lines of BASIC needed at the beginning of the program requiring numeric lock are:

```
01 FOR ADDRESS=&H3B TO
&H48
02 READ byte$ :
byte=VAL("&H"+byte$) :
POKE address,byte
03 NEXT : routine=&H3B :
CALL routine
04 DATA
01,20,10,CD,5A,FC,DD,00,CD
,5A,FC,DA,00,C9
The penultimate instruction in a
program should then be:
POKE &H3D,0 : CALL routine :
```

effectively removing numeric lock state.

John Eggeling  
London

# TIP OFFS

## Red-hot tips straight from the horse's mouth

Can't face those hurdles in LocoScript? Falling down in Mini Office? Your BASIC program a non-runner? Don't give your heart an unnecessary flutter, come to TipOffs, the pages which always come home ahead of the pack. And if you know any certain tips in LocoScript or dark horses in any well-known program, tell us – the best get £30! Accumulating the winnings this month are Ian Goodhardt of Stanmore and Rose Bilany of Bath for their invaluable advice on footnotes in the three big word processing packages...

## What's afoot?

Footnotes are a constant bugbear of anyone writing documents like – well, like the sort of documents that have footnotes. In LocoScript footnotes are a bit tricky.

In Mini Office, though, it's easy. You can define as many footers as you like in a document at any point. So, by putting the footnote text in a footer just after the line in which the reference occurs, you ensure two things. First, your footnote text always appears at the bottom of the page, even if you subsequently edit the text before it. Second, if your subsequent editing adds another page before the footnote, both the line with the reference and the footnote footer will be displaced together onto the next page. The proviso is that you can only have one footer to a page, so multiple references must all go in the same footer text. Also you must remember to turn the footer off on the next page or else your footnotes will go onto every page thereafter.

Here's an example. In the middle of your article on small ruminants you want to add a footnote on a forthcoming

conference. In the text you put an asterisk, or a number, preceded by [SHIFT][ALT]S for superscript and possibly [SHIFT][ALT]B for bold and followed by [SHIFT][ALT]O to reset ordinary script (ie. cease superscript) and [ALT]B to turn bold off. On the line immediately after, put an [ALT]F to finish a footer, then a [SHIFT][ALT]F before it. Then, between these two, type the text of your footnote. Continue on the line after the [ALT]F mark as normal. One page after the footer (ie. the same line on the next page) turn the footer off by making a new, blank footer (ie. [ALT]F preceded by [SHIFT][ALT]F).

Your footnote is normally limited to three lines, though you can allocate more space in the 'page format' menu (take 'Print' from the main menu, then 'Setup printer') for your footer in the 'bottom gap'. This would leave a gap at the bottom of all the printed pages, of course. For single sheet printing, set the 'bottom gap' to 13. On a 9512, a [SHIFT][ALT]Z before any change of pitch enables you to stop printing and change the daisywheel to a

```
as running around in the nude shouting 'I have found it', Archimedes
also worked out the number of grains of sand in the universe.*b. He was a
great engineer and famous for his screws. He nearly discovered calculus
but couldn't as algebra had not been invented.
Meanwhile the Chinese had invented paper and the Civil Service,
and so were looked on by the rest of the world with great sympathy. They
found that everything in the world was false, but could not prove it.
Fortunately the ahg oid and it ouw wasn't hi but for that it was a
number
END
```

```
as running around in the nude shouting 'I have found it', Archimedes
also worked out the number of grains of sand in the univer *b. He was a
great engineer and famous for his screws. He nearly discovered
but couldn't as algebra had not been invented.
Meanwhile the Chinese had invented paper and the Civil
and so were looked on by the rest of the world with great sympha
```

\*the answer he got was one followed by sixty-three zeroes.

different pitch size.

Even after subsequent editing of your text the footnote will always be on the correct page. And they look very impressive!

In LocoScript, making footnotes is not as easy as in Mini Office – but it's still a lot easier than on a typewriter!

One way of doing it is to put the footnote text immediately after the line in which the reference occurs, in the main body of the text. Of course it must be

preceded and ended with a [RETURN]. This means when you come to move the footnote to the bottom of the page just before printing out, you won't change the format of subsequent pages – the pages afterwards will still begin in the same place. A nice advantage of this is that you can have normal footers (displaying the page number, for example).

To rule off the footnote text from the rest of the page, it can begin with the old trick of (+UL) (+RA) (-UL) (in



# TIPOFFS

## MASS market

If you want to auto-load the very useful MASS easy labelling package, owners of the version 3.5 may find the modification recommended in the manual doesn't work – an added file leaves no space for the startup routine to work in. The solution is to create an extra k by erasing the file PROFILE.SUB from the disc and renaming LABELLER.SUB to PROFILE.SUB.

**John Hough**  
**Reading**

## Undoing SETKEYS

When making a PROFILE.SUB file to start up programs automatically, many people use SETKEYS to configure the keyboard. When returning to CP/M, the keyboard no longer runs normally, unless the computer is reset.

However, owners of LocoScript 2 version 2.12 or later will find a file on that disc called LOCOCHAR.KEY. If this is copied to the autostart disc, it can be used to reset the keyboard to normal. Just add a line to your PROFILE.SUB file so that it includes these lines (to run your program ZAP.COM):

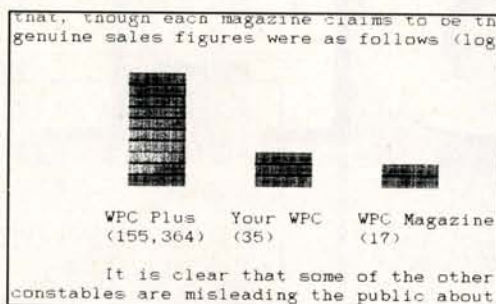
```
SETKEYS ZAP.KEY
ZAP
```

## Hit the bar

Mini Office's facility to print in reverse can be used for simple bar charts and graphs. Just putting [SHIFT][ALT]R, the required width of spaces, and [ALT]R, gives a grey bar of that width.

If you want the bars to go vertically, select (nearly) half-line spacing with the command [ALT]V[ALT]2. You can check how it will look on printout with the [f3] 'page mode' option.

**Geoffrey Walker**  
**Eynsford, Kent**



that, though each magazine claims to be the 'best selling' for WPCs, the genuine sales figures were as follows (logarithmic scale):

Magazine	Sales (copies per month)
WPC Magazine	17
Your WPC	35
WPC Plus	155,364

It is clear that some of the other publications for women police constables are misleading the public about their figures.

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It is clear that some of the other publications for women police constables are misleading the public about their figures.

## SETKEYS LOCOCHAR.KEY

The keyboard will be reconfigured to run your program, but when you return to CP/M, the last line of the PROFILE.SUB will be executed and the keyboard restored to normal.

**Maggie Rugg**  
**Exeter (again)**

## Reverse out

Further to the tip in the July edition about reversing the screen – the address to change for LocoScript 1.42 is 8454 and for version 2.14 it is 78B6.

**Alexander Deuchar**  
**BFPO 107**

## The joy of index

For anyone who writes a lot of LocoScript letters to the same people, it is useful to be able to see them on the disc manager screen in the order in which they were written – even better if they can be identified by date.

A simple way to arrange this is

LocoScript 1 the middle command is (+RJ). Footnote text goes best in a small pitch such as 15.

Just before you print out, you'll have to move all the footnotes to the bottom of their page. If your footnotes are all referred to by asterisks (for example) you can easily find them using [FIND]\*.

Then look to see where the page break comes – suppose the last word on the page is 'desperately'. Move back to the footnote text and [COPY] with the cursor on the [RETURN] marker which begins the footnote. Move to the [RETURN] which ends the footnote text and press [CUT] to cut it out, giving any number to

store it under temporarily (zero say). Move down to the line ending in 'desperately', go to the end with [EOL], and paste in the footnote just cut out with [PASTE] followed by zero. Your footnote should fit in

above, using [CUT] and [PASTE].

But for many academic and similar documents, you might want a list of references at the end of each chapter. These refer to numbers at various points in the

was zero.  
→ This is usually credited to Al-Khwarizmi and various other early Arab mathematicians\* and was named after the empty row on the abacus. It is the  
\*many sources credit the Hindu mathematicians of Ashoka's court as having first devised concept of zero.  
commonest Arabic word in English after 'coffee and 'hashish'.  
→ The invention of zero led to place values, which meant by 'accidentally' putting the decimal point in the wrong place you could charge ten times too much. This was great for commerce and the coffee and hashish markets boomed.  
→ Next came negative numbers, the invention of some Hindu mathematicians who immediately put their discovery to good use by inventing overdrafts. Negative numbers were scoffed at in the west and only a run of desperately cold Greenland-like winters in the middle ages convinced people that sub-zeroes were for real.

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Page 44

nice down to the bottom of the page, the next page starting where it did before. If not, force a new page after the footnote with [ALT][RETURN].

**Rose Bilany**  
**Bath**

In Protex you can't use the footer trick as in Mini Office above (Protex's footers don't take effect until the page after they're defined). You have to use a procedure similar to the LocoScript routine

text. This makes things easy – it doesn't matter if you add or cut text from the chapter, the references always stay at the end. The only problem is all that fiddly numbering – first you have to make sure that the numbers are consecutive, that you haven't missed any out or duplicated them. Next you have the problem of tediously renumbering them all if you decide to put an extra reference between 1 and 2. Not any more! Protex will



Disc management. C=Create new document F=Edit document P=Print document D=Direct printing F=Fill M=Merge F=Actions f2=Disc f3=File f4=Group f5=Document f6=Settings f7=Disc change f8=Options			
Drive A: 216k used 488k free 30 files group 0 204k group 1 0k group 2 0k group 3 0k group 4 0k group 5 0k group 6 0k group 7 0k	Drive B: 0k used 0k free 0 files not fitted 0 files	Drive M: 44k used 256k free 14 files SYSTEM 28k MEMOS 2k group 1 0k LABELS 2k LETTERS 2k INVOICE 4k MANUSCRIPT 2k MAILSHOT 4k	
A: group 0 23 files 0 limbo files 9512 .824 14k 9512 .BAK 2k AVERAGES1.COM 30k AVERAGES.COM 30k AVERAGES.DOC 10k CAMBASE .824 15k CASE .824 12k CRICKET .824 6k GAMES .824 6k GRAPHICS.824 12k MINDFIT .824 16k MD .824 15k PAYMENTS .824 2k PIP .COM 10k PLAYER88.DAT 2k PROTEXT .1W 2k PROTEXT .1 6k QUICKIES.824 5k READ .ME 2k	A: LETTERS 7 files 3 limbo files BANKMNGR.806 2k BANKMNGR.811 2k FELICITY.214 2k FELICITY.330 2k FELICITY.403 2k FELICITY.801 2k XMASLIST.C24 2k	M: SYSTEM 8 files 0 limbo files D630 .HCP 2k D630 .PRI 4k DMP .PRI 4k INSTALL .DRV 6k PCW9512 .WSF 2k 3 hidden 10k	

to give them titles in the form name-date (eg. NOBBY.429 for a letter dated April 29th to Nobby). The only problem comes at the end of the year – get round it by putting the month in hex (ie. A for October, B for November and C for December, making Christmas Day .C25) and everything is correctly sorted all year round. You learn a bit of hexadecimal too!

**Chris Shipp**  
Kingsbridge, South Devon

## Alarmist

If a LocoScript operation involves a long scroll through a document,

you don't have to watch it to see when it finishes. After giving the command (a FIND or DOC perhaps) just press a meaningless few keys – say [PASTE]===. When Loco finishes the first command, it gets to the meaningless one and beeps in protest, telling you it's finished whatever you asked it first.

**N N Hancock**  
Lymm, Cheshire

## Missing SID

When using SID to alter some part of a program, usually text, you often have to look through the code from the beginning to locate the

part you want to change.

Usually you keep typing d which displays the code in chunks. However if you type dffff at the beginning, SID scrolls through the program continuously, while you sit back and watch out for the text you wish to change in the table on the right. [STOP] will stop the scrolling.

**Richard Lyon**  
Ryde, Isle of Wight

## Bright ideas

Some tips for those using light pens. First, reduce as much as possible of the reflected light on the PCW screen – close the curtains! Second, adjust the brightness control at the right hand side of the PCW monitor to maximum.

In Trojan's 'Cadmaster', always select at least a 2½ second delay to allow movement in positioning

## Long BASIC files

It's not possible to make a BASIC listing of more than 31k. However, longer programs than this can be run – several files can be chained together by the command CHAIN.

You might have your long listing split into FILEONE.BAS and FILETWO.BAS. To 'run' the first

before the selected option leaps into action. Finally, always select the target cursor, as you can be sure of adjusting to pixel accuracy after first plotting an option.

**Jon Dennington**  
Eynsham, Oxford

## Battle of cress

Why splash out up to £4.99 for a 'plonker box' when your supermarket sells them for 12p? And on top of that you get a free helping of cress! Eat the cress, clean the plastic 'plonker box' and affix with a lump of blue sticky stuff to the side of your PCW!

**John Puxty**  
Carnforth, Lancs

from within the second just put the command CHAIN "filetwo" , , all (yes, two commas). This last bit makes sure all the values of the variables will be transferred intact to the second part.

**Maggie Rugg**  
Exeter

number them all for you with the following simple EXEC file.

First put the following phrase in your STARTUP file, or just type it in during command mode:

```
key v
^24^t^24^c&fn&^24^t^24^c
Then whenever you want a
reference number to be inserted in
the text, press [f3] and Protex
puts in &fn& in condensed
superscript. This is where Protex
will insert numbers for you later
on.
```

Now for your auto numbering routine. Make a file called FOOTNOTE containing:

```
[254]f &fn&
[251][13]>sv fn=fn+1
fn=fn[W1][254]x footnote
Now, finish your chapter pressing
[f3] wherever you want reference
numbers. You can put them in
between two already there but
can't put more than one to a line.
Keep your end-of-chapter
references in a separate file with
[f3] presses before each
reference.
```

Just before you print out your chapter, put the line >sv fn=1 at the beginning, press [STOP] and type x footnote. Protex adds a

```
>sv fn=1
but this was challenged in 1964 when Hardcastle
& Arkwright tried to account for Deimos'
and Phobos' low luminosity by proposing that
they were actually very large black
puddings, and went on to 'find' a cup of
tea 55km across near Olympus Mons on the
surface of Mars.
```

```
>sv fn=1
but this was challenged in 1964 when Hardcastle
& Arkwright tried to account for Deimos'
>sv fn=fn+1 fn=fn[W1]
and Phobos' low luminosity by proposing that
they were actually very large black
puddings, and went on to 'find' a cup of
>sv fn=fn+1 fn=fn[W1]
tea 55km across near Olympus Mons on the
>sv fn=fn+1 fn=fn[W1]
surface of Mars.
```

lot of (unprinted) extra lines to the text and nothing intelligible appears to happen, but don't worry! At the end some spurious (but harmless) 'Not found' messages appear – press [STOP] to stop.

Now print the document to screen with a ps command – you'll see that wherever you pressed

[f3], consecutive reference numbers have now been inserted! Then do the same for the references file, merge them (put the cursor at the end of the chapter and type in command mode MERGE REFS.1 or whatever your references section is called) and print them out.

Of course, you can use this routine for any application where consecutive numbering is required – in data files for invoices, for example, or tickets, or numbered clauses in a contract. If you want your numbers to print out normally (not superscripted or condensed) your phrase for v should be key v &fn&.

**Ian Goodhardt**  
Stanmore, Middx

```
but this was challenged in 1964 when Hardcastle
& Arkwright' tried to account for Deimos'
and Phobos' low luminosity by proposing that
they were actually very large black
puddings², and went on to 'find' a cup of
tea 55km across near Olympus Mons³ on the
surface of Mars.
```





These pages provide a comprehensive guide to the Amstrad PCW software. Published in three monthly parts, this time it's the turn of Databases, Education, Communications and Programming packages to face the ultimate test. We've set out to cover every important piece of software we could lay our hands on, and to give you enough information to decide whether they are suitable for you.

The software listed here represents what we consider to be the best of the many programs available. As well as a brief summary of what they do, the main Plus and Minus points for each program are listed – Pluses have a ▲ by them, and Minuses a ▼. Those we think are particularly noteworthy have a flash on them.

To the best of our knowledge, all the programs here should run on both 8000 series machines and the 9512.

## • DATABASES •

There are broadly two different types of database, and which suits you best depends, of course, on what you want it for.

Firstly there's the simple card index substitute. For many home users, this will be the kind of thing you want – all it does is store your address book or stock items so that you can easily look them up.

A more sophisticated option is the programmable database. With these, in addition to allowing simple card index retrieval there is a command language which allows you to analyse the data on the cards. For example, you could automatically add up the money owed to you by all your customers from Yorkshire. To make best use of this kind of facility, you will need to be able to understand a little programming, although it's not too hard really.

A bit of jargon now. A database is said to consist of records – this is just like a card in a conventional card file, with all someone's details on it. Each record is composed of fields – a field is a single entry on a card, like someone's name, or age, or postcode.

The thing that makes a database special is an index. You might be able to hold your address book as a simple list in a word processor document, but if it gets large then this becomes unwieldy. An index means that the database has worked out which order records should be in, so it can go straight to the one you want without looking at lots of others first.

The field that you use as your index (e.g. someone's surname) is said to be a key field, and can be looked up very fast compared to

"non-key" fields. A good database will allow multiple keys, meaning that it can look up data just as fast for a variety of types of information.

### MASTERFILE 8000 £49.95 • Campbell Systems • 0378 77762/3

A specially written PCW version of the successful database sold on other Amstrad computers. It is fully menu controlled, and makes good use of the PCWs special screen and keys. It can deal with up to 8 separate data files at once, so can cope with relational databases. Screen (but not printed output) can be elaborately laid out with boxes, lines etc.

#### PLUSES • MINUSES

- ▲ Works fast
- ▲ Wide range of Layout options
- ▲ Handles 'relational' files
- ▲ Plenty of good example files
- ▲ Can do arithmetic calculations within its records
- ▲ Capacity limited by size of M drive – best on an 8512
- ▼ Takes a while to learn all the features

### ATLAST £39.95 • Rational Solutions • 0566 81511

Recently released revised version with new manual and a new price. Atlast Plus is a full featured database that is excellent value for money. It does what Cardbox did, with much better reporting facilities, and can sort too. You can do simple totalling of columns, but not general arithmetic on fields in a record. Its claims to be a true 'relational' database like dBase II are a little grandiose, but a good general purpose database – recommended.

#### PLUSES • MINUSES

- ▲ Good screen editing facilities
- ▲ Constants enable insertion of repetitive data.
- ▲ Good on storage space – ideal for 8256 owners
- ▲ Handles names and addresses well.

- ▼ Still no arithmetic calculation in field
- ▼ Setting up the database is at first confusing – function of 'SYS' file unclear
- ▼ The manual is better than the old one but could be further improved for beginners.

### CAMBASE £49.95 • Camsoft • 0766 831878

Cambase is very strong on data security – you can define passwords to protect sensitive databases. It is driven by quite an intricate set of menus, and you'll have to plan your application carefully since the database format can't be changed once set up. Generally good for writing applications with.

#### PLUSES • MINUSES

- ▲ Sensitive data can be protected by a password system.
- ▲ Record structure can be conditional – e.g. "only have a 'spouse' field if status is 'married'"
- ▲ "Processes" provide for some simple automatic calculations
- ▼ Over-protective user interface, which asks for confirmation of almost every command
- ▼ Database main attributes are fixed after initialisation and can't be changed
- ▼ Doesn't have full screen editing of records
- ▼ Manual needs an index, and is weak on explaining advanced topics
- ▼ The (single) key field has to be entered separately to the record data proper

### MINI OFFICE PROFESSIONAL £29.95 • Database Software • 0625 878888

Mini Office is a suite of five integrated programs – database, word processor, spreadsheet, graphics module and comms package. The database is a pretty standard card index type, similar to First Base. Good range of selection operations and arithmetic on fields. Can sort over a combination of fields and print out a variety of smart layouts, and you can have up to 255 fields! Of course you're getting four other very good programs as well. The big problem is that you can't import data, so any data you already have must all be re-entered. No export either.

#### PLUSES • MINUSES

- ▲ Easy to use and intuitive
- ▲ Can use the data in the word processor
- ▲ Powerful selection and sort facilities
- ▲ Arithmetic on fields
- ▲ "Test print" facility lets you check your labels will print OK
- ▲ Can make global changes, ie. change '£3.50' to '£5' in all



# THE GOOD SOFTWARE FILE

## DATABASES • EDUCATIONAL

- records with one command
- ▼ Can't import or export data
- ▼ Manual is of very little use

### CHIBASE

£49.95 • Chiasma • 06333 60996

A 'free format' database, which means you don't have to go through the usual rigmarole of defining your record format before you can enter your data. Instead, you just type text into Chibase, mark the words to be indexed, and it can then treat that file as a database.

#### PLUSES • MINUSES

- ▲ Doesn't require you to set up a preset 'record' card
- ▲ Searches through your data very quickly
- ▲ Allows you to select up to 50 keys for each page of text
- ▲ Allows editing of text without a word processor
- ▼ No sample file for you to learn on

### DELTA

£99.99 • Compsort • 04868 25925

Delta is another of the heavyweights, like dBase II and Condor, but unlike them is fully menu driven. Although the screen layouts are fully flexible, there is a default "quick" layout so you don't have to sweat at defining your own. It could use better record indexing facilities. Particularly good for writing applications, once you have ploughed through the large manual.

#### PLUSES • MINUSES

- ▲ Records can contain up to 90 fields, plus groups of fields that may be repeated
- ▲ Screen layout can be user defined, or "quick" mode used
- ▲ Single-page letter writer provides detailed mail-merge
- ▲ Processes can be defined, and run from user defined menus, for ease of use by others
- ▲ Very full, and quite readable, manual
- ▼ Only one field may be used for indexing
- ▼ Very big program – a PCW8256 would be hard pushed
- ▼ Some of the menu operations are unforgiving to errors

### POCKET INFOSTAR

£69.50 • MicroPro/DRA • 0386 841181

Consists of two large programs, DataStar and ReportStar (both available independently). DataStar is a conventional database, with screen card layout and indexing. ReportStar then generates the printed output, either from DataStar or CalcStar files. Powerful if you can use them, but the suite is horrifically overcomplicated, and the documentation just incomprehensible.

#### PLUSES • MINUSES

- ▲ DataStar is a quite good database with indexing and calculated fields.
- ▲ "Transaction processing" feature allows cross-referencing of data files.
- ▲ Can be integrated with other Pocket products, eg WordStar.
- ▲ Can take up to 255 fields per record
- ▼ Two-volume manual set is very badly organised.
- ▼ There are separate programs to run for form design, data entry and reporting.
- ▼ Operation is all by obscure command keys, à la WordStar.

### CARDBOX-PLUS

£99.95 • Business Simulations • 0892 863105

Business Simulations are the company who actually wrote the successful Cardbox database, and they are the sole distributors of their enhanced version Cardbox-Plus. Disappointingly, still no field totalling facilities, but it does boast sorting, index listing, disc management and an autosave feature as extras to Cardbox. The ultimate straight card index, if you have the money.

#### PLUSES • MINUSES

- ▲ All the facilities of the very successful Cardbox
- ▲ Cards can be sorted into order for browsing and printing
- ▲ "Autosave" will regularly store the data to disc in case of mishap
- ▲ Files created by Cardbox can be read
- ▲ Full and good manual, although the tutorial is at the end
- ▼ Still no way of performing numeric calculations
- ▼ A lot to pay for a few frills to the basic Cardbox

### DBASE II

£99.00 • Ashton Tate/First Software • 07357 5244

The WordStar of database packages. Recently licensed "cheaply" for Amstrad machines, dBase II is a market leader in business computing. As you would expect, this means it is very powerful but very complex. It has a procedure language to allow you to write programs to manipulate the data, and you can construct index files for really fast access to large databases. If you can make the effort to learn it, it'll serve you well.

#### PLUSES • MINUSES

- ▲ Powerful command language for customised programs
- ▲ Indexing facility makes large databases fast to handle
- ▲ Can handle very big databases
- ▲ The data can be fairly easily altered after its entry
- ▼ Manual is daunting (but there are plenty of independent books on the market)
- ▼ Can't easily alter the screen record layout
- ▼ For an expensive package, you still only get 32 fields per record
- ▼ Generally unfriendly unless you have some programming skills

### FT=DB

£29.95 • Encyclosoft • 0270 811868

A free form database like Chibase, but instead of typing your text into the database itself, you create it on a wordprocessor first of all. Once done and edited to your liking, you mark all the words you want to be used as keywords (still in your word processor) and then read it into FT=DB. Now you can treat it as a database, compile indexes, search for phrases and so on, all quite efficiently.

#### PLUSES • MINUSES

- ▲ Easy to use
- ▲ Versatile retrieval system over several text files
- ▲ Inexpensive
- ▲ Can move between index and text at will
- ▼ No editing facilities within FT=DB

### FIRST BASE

£29.95 • Minerva • 0392 37756

Billed as a simple database for the first time user, First Base is quite a competent cheap card index. The manual is computer printed, and weak on diagrams which doesn't help things. One weakness is getting printed results out of First Base – either you settle for crude lists, or you have to create a template in LocoScript which is awkward to do. But overall, for simple applications and beginners, it's pretty good value for money.

#### PLUSES • MINUSES

- ▲ Can alter the index field at any time
- ▲ Simple to use screen editing makes data entry easy
- ▲ Good value as a simple card index lookup system
- ▲ Can easily browse through the database picking out a set by hand
- ▼ Manual is badly laid out and generally difficult
- ▼ Producing printed output is awkward

### SMARTCARD

£59.95 • Focus Computers • 0272 420109

A conventional card index database which is now the nearest thing available to Cardbox. Small and fast, you can sort the records index up to three fields and do simple arithmetic in fields. Can't put background text (eg. titles) on records or printouts.

#### PLUSES • MINUSES

- ▲ Good clear screens
- ▲ Plenty of onscreen help
- ▲ Fast and high capacity
- ▲ Easy to use
- ▼ Can't put background text on printed reports
- ▼ No way of exporting data for mailmerge

### DATASTORE II

£39.95 • Digita • 0395 45059

Another standard database, written in BASIC and using Mallard's famous JETSAM commands. Is therefore slow in some parts though version 2 is considerably faster than 1. Simple to use, has calculation facilities and a good control over the printed output – your printouts can be made to look very

impressive. You have to set the maximum number of records you want before you start, which is tedious, and browsing is slow.

#### PLUSES • MINUSES

- ▲ Good range of print format commands
- ▲ Simple to use
- ▲ Calculation facilities – OK for accounts use
- ▲ Nice touches eg. text automatically adjusts size to fit printout
- ▼ Must set max. no of records on setting up database
- ▼ Only two print formats per database
- ▼ Slow at browsing through

### SAGESOFT RETRIEVE

£70 • Sagesoft • 091-284 7077

A high-power package that is relatively easy to use with password security if desired, calculations, automatic counting or deletion of sets of records satisfying given conditions. It also has sophisticated sort and select commands, and change the structure of an existing database. All this is done by a set of commands rather like a programming language. Printed formats are rather limited though and the program insists on using both drives, making use on a 8256 impractical.

#### PLUSES • MINUSES

- ▲ Easy to use for a powerful package
- ▲ Advanced sorting and selection commands
- ▲ Subsets can be written to files
- ▲ Can count or delete subsets with one command
- ▲ Labelling/mailmerging routines included
- ▲ Can change structure of existing database
- ▼ Impossibly big program for 8256
- ▼ Printed output limited – must use mailmerge

### PROTEXT FILER

£24.95 • Arnor (0733 239011) • All PCWs

This is a program which adds database features to Protext so that you can use a database system from within a wordprocessor. It's very convenient for maintaining records without having to keep switching to a database package. Except for the sort program, you can work within Protext all the time.

#### PLUSES • MINUSES

- ▲ Very easy to use once you learn it.
- ▲ Familiar Protext environment.
- ▲ Good sorting facilities and name handling.
- ▲ Can use Protext/database in parallel.
- ▲ Import/export/print formats no problem.
- ▼ No calculation facilities.
- ▼ Selection facilities are a bit crude.
- ▼ If you're familiar with Protext you can probably mimic a database yourself.

### MICROFILE

(Sold in The Micro Collection)

£49.95 • Saxon Computing • 0401 50697

Microfile is a well implemented simple database, driven by plenty of menus and on-screen prompts. It's fast and has good screen control, although it has some size restrictions. Microfile comes as part of a software suite, "The Micro Collection", which is good value (Microfile, Microwrite, MicroSpread, Flexilabel and Lock-It).

#### PLUSES • MINUSES

- ▲ The price includes competent word processing, spreadsheet, labelling and encryption programs
- ▲ Plenty of menus and on-screen prompting
- ▲ Very flexible formatting for screen layout and printing
- ▲ Numeric fields can be expressions to be calculated
- ▲ Indexing is fast and can be on several fields
- ▼ Maximum number of fields per record is only 20
- ▼ Limited facilities for totalling up fields in a database

## • EDUCATIONAL •

### ANIMAL VEGETABLE MINERAL

### WORLD WISE

£14.95 each • Bourne Educational • 0794 523301

Aimed at the younger market, 7-15 year olds. Both these programs work by learning as the child uses them. Think of an object and the computer tries to guess it. If it is wrong, the child is asked for a question which would allow the PCW to be right next time, and it learns.

#### PLUSES • MINUSES

- ▲ Can be used as many times as the child's imagination holds out
- ▲ Performance can be analysed by a teacher after a session
- ▲ As you build up a base of objects and questions, they can be saved for reuse
- ▼ It needs a lot of typing, hence a lot of supervision
- ▼ The PCW starts with only two objects known, so it takes time to get going
- ▼ Documentation has hardly been altered from cassette-based versions
- ▼ Since it is for young children, more imaginative use of the screen would be nice



# POOLSWINNER II

THE ULTIMATE POOLS PREDICTION PROGRAM

- **MASSIVE DATABASE** Poolswinner is a sophisticated Pools prediction aid. It comes complete with the largest database available - 22000 matches over 10 years.
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- **SIMPLE DATA ENTRY** All team names are in the program. Simply type in the reference numbers from the screen. Or use FIXGEN to produce fixture list automatically (see below).
- **LEAGUE AND NON-LEAGUE** All English and Scottish League teams are supported, and also the non-league sides often used on pools coupons.
- **PRINTER SUPPORT** Full hard copy printout of data if you have a printer.



PRICE £18.00 (all inclusive)

**FIXGEN 88/9** AT LAST: No more struggling for hours to get the fixture list into the computer. FIXGEN has been programmed with all English and Scottish League fixtures for 1988/89. Simply type in the date, and the full fixture list is generated in seconds. Fully compatible with Poolswinner. Yearly updates available.

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# THE GOOD SOFTWARE FILE

## EDUCATIONAL • COMMUNICATIONS

### 2 FINGERS TOUCH TYPING

£24.95 • lansyst • 01-607 0187

Despite its provocative name, a useful typing tutor in that it specifically caters for people who can already get by on keyboards with two fingers. You are gradually introduced to touch typing, so your speed doesn't drop while you learn. Fills a necessary slot in the Typing Tutor market.

#### PLUSES • MINUSES

- ▲ Suitable for improving two-finger typists without much drop in speed
- ▲ Full on-screen instructions
- ▲ Exercise material is interesting text, not letter drills
- ▼ Explanation text is annoyingly verbose in some lessons
- ▼ It doesn't always ensure that the cursor is properly aligned with the exercise text

### IANKEY CRASH COURSE

£24.95 • lansyst • 01-607 0187

A fairly traditional typing tutor, taking you through basic keyboard exercises. There's a lot of explanatory text, which gets in the way second time around. Definitely competent, but a bit boring.

#### PLUSES • MINUSES

- ▲ Mostly avoids boring letter drills
- ▲ Very full on-screen information guides you along
- ▲ "Fast" option cuts out some text if it gets repetitive
- ▼ Not particularly imaginative use of graphics
- ▼ It doesn't always ensure that the cursor is properly aligned with the exercise text

### GIANTKILLER

£14.95 • Topologika • 0733 244682

A mathematics adventure game loosely based on Jack and the Beanstalk. Lots of intriguing puzzles which should stimulate any student up to GCSE standard. Not the best adventure game ever written but great for making mathematics fun!

#### PLUSES • MINUSES

- ▲ Puzzles plausibly integrated into scenario
- ▲ Progression of game is simple and well defined
- ▲ Puzzles introduce a lot of valid mathematics
- ▼ Program understands only very simple commands
- ▼ Saving a position takes a move – can be fatal
- ▼ Won't be of particular help in exams

### BETTER SPELLING

£12.95 • School Software Ltd • 010 353 61 27994

This is a spelling course aimed at the 8 to adult age group. It consists of a series of well organised, short lessons each dealing with one topic, like plurals or which version of there/their/they're to use in a sentence. The use of the PCW screen is rather unimaginative, and doesn't hold your attention.

#### PLUSES • MINUSES

- ▲ Well thought out lessons to emphasise particular points
- ▲ Teaches words in a sentence context as well as in isolation
- ▲ Lessons can be picked in any order from a menu
- ▲ Seems to be proof against mischievous key pressing
- ▼ Boring use of the screen doesn't grab interest
- ▼ No instructions come as to how to use the program.

### CHEMISTRY • BIOLOGY

£12.95 • School Software • 010 353 61 27994

These two are fairly traditional question-and-answer tests. You are faced with a choice of 10 topics, and then asked 10 or so

questions each, where you have to fill in the blank in a statement. There are preamble notes beforehand, and if you get it wrong you are given a clue. Aimed at 12-16 year olds.

#### PLUSES • MINUSES

- ▲ Questions would challenge a GCSE pupil well
- ▲ Preamble notes introduce topics
- ▼ The fill-in-the-blank questioning style has little flexibility for different answers
- ▼ No option to add questions for a specialised syllabus
- ▼ Some careless errors, like incorrect facts and hard to decipher chemical formulae

### MICRO MATHS

£24.95 • LCL • 0491 579345

Supposedly covering 8 to adult ages, this seems an O-level type program, covering topics from calculus to tables. A good implementation on the PCW with proper use of the screen.

Questions are picked at random from a pool, so may repeat but never run out. Replies to questions are typed in mathematical notation, like  $X^2+3$

#### PLUSES • MINUSES

- ▲ You can pause to use BASIC as a calculator while you think
- ▲ 'Unlimited' question set
- ▲ Comes with a 'free' book of AEB O-level questions
- ▲ Good hints and explanations when you get an answer wrong
- ▼ Questions in a topic repeat occasionally
- ▼ Some frills, like the clock and beeper, are annoying
- ▼ No flexibility to add questions for a particular syllabus

### AMSTAT 1,2,3 AND 4

£30-ish • Coleman • Ashby-de-la-Zouch LE6 5DA

A suite of four statistical routines including a business analysis program, forecasting and resource management. Individual prices range from £27.95 to £39.95, all four cost £99.95. Sophisticated but perhaps awkward for beginners.

#### PLUSES • MINUSES

- ▲ Good range of statistical functions
- ▲ Good manual
- ▲ Can produce fair quality graphical results
- ▲ Some editing procedures very long-winded
- ▼ Needs some expertise to use properly
- ▼ Weak on checking that input data is reasonable.

### OXSTAT

£113.85 • Medstat Ltd • 0602 411120

This is a specialised statistical analysis package for the PCW. Functions from calculations of means to multiple linear regression are covered, and it can do some rudimentary graphics for results. You can read data from spreadsheets or external devices.

#### PLUSES • MINUSES

- ▲ Comprehensive range of statistical functions implemented
- ▲ Good screen editing facilities for entry of data
- ▲ The speed seems acceptable, even though it is written in BASIC
- ▲ Even complex analyses are easily entered by simple menus
- ▼ Weak on graphical presentation of results

### YES CHANCELLOR!

£14.95 • Topologika • 0733 244682

Wait! Don't skip over Yes Chancellor! because it calls itself an 'economic simulation' program. Instructive and fun to use, you type in your annual budgets (tax rates, public spending etc.) and see your popularity plunge and the economy crash. Great for economics classes, also an amusing game in itself.

#### PLUSES • MINUSES

- ▲ Simple but effective model of the economy
- ▲ Comes with booklet explaining economic principles
- ▲ Great for teaching economic and political pragmatism!
- ▼ Can get boring as a game
- ▼ You can't adjust the model of the economy, so it can be too simple

## • COMMUNICATIONS •

Communications is one of the glittering areas of computing, gurus would have you believe. It can provide a fascinating hobby for 'hackers', but more importantly it is a valuable business tool.

'Electronic mail' is just what it says: you use your PCW to send messages, which can be documents thousands of words long, to others on the electronic mail system. The best known system of this kind is Telecom Gold, which also allows you to send telexes. Another major system is Prestel, which is more of an information provider – you can read share prices, weather information and other news direct from your phone line.

For any professional service, you pay a registration fee, plus a connection charge – typically around 10p per minute you use the system. Of course, your phone bills are extra. For hobbyists there are also 'Bulletin boards', which are effectively a kind of private electronic mail system run by a system operator (a 'sysop' to those in the know).

To use any service, you will need to buy a modem and an interface. A modem allows you to send computer signals down a phone line, and the interface gets the signals from your PCW to your modem. The pair will set you back £200 or more. Once done, you need some software to allow you to send and receive data, and it is this software reviewed below.

Electronic mail services just send strings of characters to and fro, whereas Prestel is a 'Viewdata' system, meaning it sends pictures and graphics too. Software needs to do more to receive Viewdata graphics, so if you want to use Prestel make sure your software is up to it.

### 8256UKM7.COM

Public domain (ie. free!)

P.D. software documentation is often poor but this program has an above average document file. UKM7 was written to support ASCII file transfers using error correction and as a dumb terminal either for use over the phone or between two Amstrads. Between two PCW's file transfer is possible at a staggering 31,250 baud which is even faster than PIP! Easy to use for beginners and better than KERMIT, UKM7 provides a cheap and excellent way to communications after you've got fed up with the PCW's MAIL232. 8256UKM7 is available from the Public Domain Special Interest Group, or most bulletin boards supporting the PCW machines.

#### PLUSES • MINUSES

- ▲ Cheap! (the price of a phone call)
- ▲ Easy to use, and helpful menus
- ▲ Both CRC and Xmodem protocols supported
- ▲ Single file and Batch Mode transfers
- ▲ "Quiet" mode for slightly faster transfers (on-line transfer progress report disabled)
- ▼ Only ASCII, no Viewdata
- ▼ You need to find a PD software source (eg. use a modem and MAIL232 software)

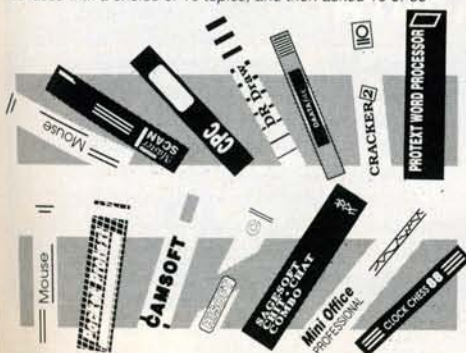
### MINI OFFICE PROFESSIONAL

£29.95 • Database Software • 0625 878888

Mini Office is a suite of five integrated programs: database, word processor, spreadsheet, graphics module – and a comms package which is as comprehensive as anything else on the market. It can display both ordinary text screens and the 'Viewdata' block graphics used by Prestel. You are offered baud rates from 75 to 9600, separately set for transmit and receive, straight terminal emulation for use with Telecom Gold, and XMODEM and KERMIT file transfer protocols for error-proof transfer of long files. Would be well worth the money just by itself – and of course you're getting four other very good programs as well.

#### PLUSES • MINUSES

- ▲ Very comprehensive – a genuinely useful comms package





# THE GOOD SOFTWARE FILE

## COMMUNICATIONS • PROGRAMMING

- ▲ Ordinary text and 'Viewdata' block graphics
- ▲ Can save setups under names and recall them, so you only need work out your baud rates/parities once
- ▲ You can set keys to return strings, such as Telecom Gold passwords
- ▲ Comes preconfigured to use Prestel and Telecom Gold
- ▼ Manual is of very little use

### DIALUP

£89.99 • PMS Communications • 021-643 7688

Offers both E-mail and Viewdata operations. Very easy to use, and offers an XMODEM transfer protocol unlike Sage ChitChat. If you are buying a modem too there are some cut-price bundled deals to be had, eg. the Miracle Technology WS4000 modem.

#### PLUSES • MINUSES

- ▲ Simple to use
- ▲ Comprehensive file transfer commands, including XMODEM and the increasingly popular KERMIT
- ▲ Runs from the M drive
- ▼ Manual is not PCW specific, and the references to 5.25" discs are tedious

### CHITCHAT

E-MAIL/VIEWDATA/COMBO

Sagesoft • £69.99/£69.99/£99.99 • 091 284 7077

Two communications programs for the 8000 series machines that have been around for a good time now. Most of the features

Easy to use

you will need are here: message text editor, preprogramming unattended tasks (if you use a suitable "intelligent" modem), directory of stored numbers, copy to printer, and a very useful connect time clock so you can watch your phone bill climb! E-mail is used for simple text phone links like Telecom Gold, whereas you'll need Viewdata if you want to use Prestel. The Combo pack contains both E-mail and Viewdata.

#### PLUSES • MINUSES

- ▲ Good, clear documentation
- ▲ Easy for first timers to use
- ▲ Built in text editor for pre-sending message preparation
- ▲ Pre-definable tasks executable at any preset time if unattended.
- ▼ No error corrected file transfer (i.e. Xmodem or CRC)

### COMM+

£86.25 • NewStar • 0277 220573

This single package combines both ASCII and full Viewdata block graphics and Telesoftware downloading. A very powerful command language allows you to look for particular messages coming in and take actions, even while doing other things. Its use is only limited by your programming ability.

#### PLUSES • MINUSES

- ▲ Very comprehensive and well indexed ringbound manual
- ▲ High quality Viewdata graphics
- ▲ Well presented on-line help menus for use by beginners
- ▲ Autodialler program works with most manual modems
- ▲ Telesoftware downloading facility, with CRC/Xmodem checking
- ▲ Very powerful command language, doesn't need much programming skill to learn

Powerful

- you are returned to the correct point to edit it
- ▲ Short compilation time, economical on memory
- ▼ Manual makes no attempt to teach you Pascal.

### THE VICAR

£29.95 • Iansyst • 01-607 5844

A programming tool for serious programmers. If you have a several-hundred line program held in several files on a disc, you can lose track of which variables are used where. The VICAR produces a concordance listing and other diagnostics, to help you find bugs and maintain the program.

#### PLUSES • MINUSES

- ▲ Easy to use but still flexible through use of options
- ▲ Amstrad versions all at a special low price
- ▲ Good manual
- ▼ Only of value on large programs
- ▼ Limited value to most PCW users (except BASIC buffers)

### MODULA 2

£45.00 • FTL/Grey Matter • 0364 53499

A compiler. Modula-2 is the successor to Pascal, good for large programs requiring separate compilation.

#### PLUSES • MINUSES

- ▲ Full implementation with extensions.
- ▲ Includes libraries of predefined modules
- ▲ WordStar-type screen editor included
- ▼ Compilation process is longwinded and not for beginners

### CBASIC

£45.00 • Digital Research • 0635 35304

#### Compiler

##### PLUSES • MINUSES

- ▲ Easier programming tool than conventional BASIC interpreter
- ▲ Very similar to BASIC, so easy to learn
- ▼ No text editor – must split your programs into 200 line chunks to work on
- ▼ Programs work no faster than they would in conventional BASIC, sometimes slower
- ▼ Non-programmers may get bored.

### MAXAM II

£49.95 (£69.95 inc. C) • Arnor Ltd (0733 239011) • All PCWs..

CP/M machine code development system incorporating an editor, assembler and monitor. It will allow you to disassemble extra memory on m: drive.

#### PLUSES • MINUSES

- ▲ Very versatile assembly language programming environment.
- ▲ Flexible monitor capable of bank switching, conditional breakpoints and symbolic debugging.
- ▲ Tailored to meet all CP/M Plus programming requirements.
- ▼ Program can't cope with some undocumented Z80 instructions.
- ▼ Program assumes basic familiarity with the Z80 assembly language.

Programming languages come as either 'compilers' or 'interpreters' – compilers pre-process the program into machine code, so are much faster. The PCW's standard Mallard BASIC and LOGO are both interpreters. Compilers are generally more cumbersome to use than interpreters, but have obvious benefits.

With language compilers in particular it is difficult whether they are reliable and efficient without spending many weeks working with them, impossible for a brief review. If you use a specialised programming language and have any comments that would help us compile a good software file entry for it, we would be pleased to hear from you.

### IT'S BASIC (VOLS 1 AND 2)

£7.95 each • Nabitchi • 051-708 8775/0123

Games with a more serious intent. These discs provide 20 simple games and applications each, and allow programmers to look at the BASIC to see how it's done and to adapt it for their own programs. You can play music on your CP/M and create your own Space Invader figures.

#### PLUSES • MINUSES

- ▲ Twenty programs at rock bottom price.
- ▲ Invaluable tips for programmers.
- ▲ Costs little more than a blank disc.
- ▼ No tutorial guidance.

### HISOFT C

£39.95 • HiSoft • 0525 718181

A very good C compiler, fast, produces good compact code.

#### PLUSES • MINUSES

- ▲ Compiles program into ordinary CPM .COM file
- ▲ Produces compact code
- ▲ Fast and inexpensive
- ▼ No floating point arithmetic

### ARNOR C

£49.95 • Arnor • 0733 239011

Good compiler with floating point arithmetic, but not as fast or as cheap as HiSoft C.

#### PLUSES • MINUSES

- ▲ Excellent integrated text editor
- ▲ Floating point arithmetic
- ▼ Cumbersome to produce .COM files, needs special run time support program
- ▼ HiSoft C is faster and cheaper

### LFORTH

£19.95 • HiSoft • 0525 718181

Forth is an unusual language, somewhere between assembler and C. This is one of the few compilers available for the PCW.

#### PLUSES • MINUSES

- ▲ Comes with a Forth editor
- ▲ Quick and efficient implementation
- ▼ Manual doesn't teach you Forth

### MIX C

£29.95 • Advantage • 0844 52075

American C compiler. You can buy a full screen editor with it for £19.95 extra. Also machine code assembler & examples for £8.95 each.

#### PLUSES • MINUSES

- ▲ Features a C tutorial
- ▲ Comprehensive implementation and massive manual
- ▼ Not for the newcomer to programming

### PASCAL

£39.95 • HiSoft • 0525 718181

A standard full Pascal compiler

#### PLUSES • MINUSES

- ▲ Well integrated text editor – when you hit a compilation error



## NEXT MONTH

The guide continues with the categories of SPREADSHEETS, GRAPHICS and GAMES. The month after that will cover WORD PROCESSORS, ACCOUNTS/PAYROLL, UTILITY and DTP software, and the month after that it's back to this month's topics.

Our intention is to keep publishing the three parts of the guide in rotation,

updating it each month to include all new products. If you would like to see other sections of the guide, back issues of 8000 Plus are available at £1.75 each.

Meanwhile, if you are aware of any significant omissions or errors in the File as published, please let us know. We intend to maintain it as THE authoritative guide to PCW software.





**Aids to Desktop Publishing on the PCW range from an Independent source.**

You've seen the ads, you've read the reviews, now send for details. Two new discs: **ANIMAL 1** and **DIGIPIC 1**, still the same high quality - 8000Plus said of Complement. "good, consistent, easy to read fonts with...flair."

**ANIMAL 1** Digitised images taken from fine drawings by Michael Kay. Superb pictures of birds, animals and insects including: Barn Owl, Dove, Kingfisher, Swan, Badger, Squirrel, Bat, Hedgehog, Fox, Dormouse, Wildcat, Grass Snake, Pike and Ladybird.

**DIGIPIC 1** Digitised images taken from photographs by T.R.Ford. Carefully worked pictures on a variety of subjects, including: Hot air balloons, Concorde, Views, Plants, Animals, Planes and Transport.

Priced at £12.50 per disc.

Dragonfly Designs, 58, The Shrublands, HORSFORD, NR 10 3 EL.

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The new Com-Stax 8 Series is a unique stand that will stack your PCW 8256 or 8512 plus your keyboard and printer in under a quarter of a square metre of floor space. Its reclining monitor position and angled keyboard make the PCW even more user friendly. The Com-Stax is 98 cm high, 41 cm wide and beautifully finished in durable red, white or black lacquer, the unit comes to you as a flat pack kit which is easily assembled in minutes with the allen key provided



## THE PRICE: £29.95

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TOTAL £38.19

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**Tel: 01.244 8292**

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Please allow 28 days for delivery. The Com Stax is a Copyright design. Patent applied for.

# MIDAS SOFTWARE

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**(0245) 461946**

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**£37.95**

**MINI OFFICE PROFESSIONAL**

**£23.95**

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**£109.95**

**dBASE 11**

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## ORDER FORM No. 25

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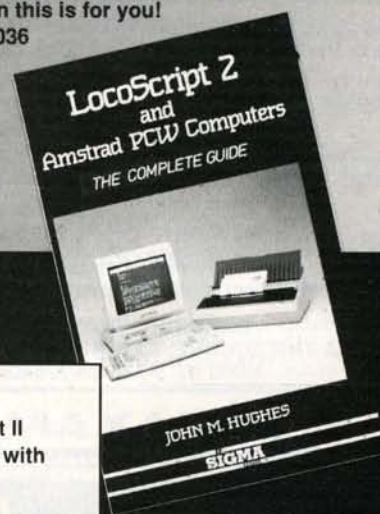
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# BARGAIN

## LOCOSCRIPT 2 & AMSTRAD PCW'S

£11.95 • Locomotive Software

Published by Sigma Press, this John Hughes book is a friendly, down-to-earth and readable guide to LocoScript 2. Whether you're an 8256 or 8512 user converting from LocoScript 1, or a brand new 9512 owner, this will tell you all you need to know. It covers the basics of layouts and tabs, LocoMail and LocoSpell, alternative printers and even gives you an introduction to the world of CP/M. If you find the Amstrad manual a bit daunting, then this is for you!  
Order code 8036



### FREE

Copy of Locoscript II  
wallchart included with  
this book

## 8000 BACK PLUS ISSUES

We have limited quantities of the back issues listed below. The prices include a nominal 25p postage. All issues contain excellent TipOff sections and a selection of BASIC listings, plus the other regulars. Don't miss the chance to expand your collection.

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Your PCW is a powerful desktop publishing tool - with it you can print everything from newsletters to posters. With the right software for your needs the options open up your computer as a handy way of earning your living.

What Mike Milan does in this book is to look at the possibilities. He leaves the actual choice of software up to you (we'd recommend Stop Press), and discusses page layout, reproduction methods, printers, fonts, trim marks, photo layouts - all in a heartening prose. An essential companion for DTPers. Order Code 8035.



**HOW TO ORDER**  
Just fill in the order form on the left of this page. Or use our Access/Visa

# PICKS OF THE MONTH

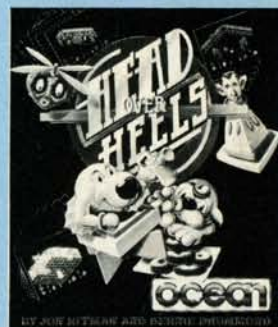
Save £££'S on these top PCW entertainment programs!

## HEAD OVER HEELS

Only £9.95! (RRP £14.95)

The incredibly-animated program from Ocean in which you control TWO separate characters, using their different abilities to solve some mind-bending puzzles. Huge playing area and probably the best graphics on the PCW. Plus totally absorbing gameplay.

Order code 8007



## SCRABBLE

Only £12.95! (RRP £19.95)



This will appeal to anyone who enjoys playing with words. A super enhanced dictionary and full board displayed on-screen means you get the full feel of this classic game. Play against friends or take the computer on. Can you beat your PCW at word processing? Order code 8008

## TETRIS

Only £14.99 (RRP £19.99)

The first Russian game to reach the West has won rave reviews everywhere. All you have to do is guide blocks down the screen into complete rows on the bottom - but be warned it has a 'Just one more go' rating of 100 per cent! Order Code 8027



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The following titles do not run on the 9512:  
Tau Ceti;  
Head Over Heels;  
Tetris

## TAU CETI

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This arcade adventure from CRL creates its own cosmology and combines the best features of shoot-'em-ups with intelligent gameplay. Set in 2140, on a planet whose defence systems are going wildly wrong, you must sort the situation out before possible catastrophe.

A classic that breaks down the distinction between arcade and adventure gaming. Order Code 8012



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An incredible value-for-money integrated package combining database, spreadsheet, word processor, comms and graphics function, Mini Office combines features often not included in software three times the price: sideways spreadsheets, full database sorting, Prestel compatibility and extremely fast word-processing including a word counter.



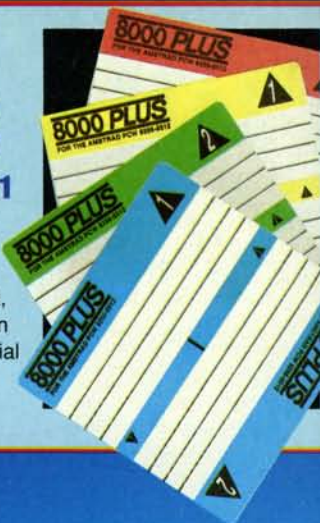
In one package, this does just about everything it's possible to do on a PCW — if you want to break free of LocoScript, this amazing value program is for you.  
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3 piece set for 8256/8512 only £11.95  
3 piece set for 9512 only £12.95

Dust is like a disease to your computer. Once it sets in it can only get worse, and leads to clogged keyboards, printers and even disc drives. These specially-commissioned 8000 PLUS covers are made from high quality, anti static nylon fabric, coloured soft grey with red piping (ivory piped with brown for the 9512).

The sweetest three piece you'll ever come across.  
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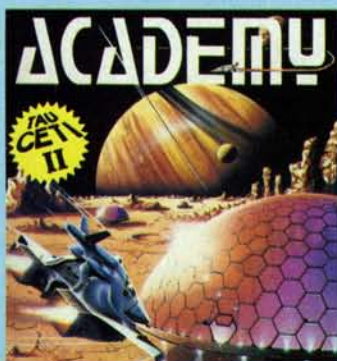


## ACADEMY

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A brilliant sequel to the ground-breaking space exploration game Tau Ceti. In Academy you must complete 20 missions, grouped in five levels of four; combat skills and environmental understanding mean must both be completed to succeed. Graphics and control factors have been heightened to push computer gaming to a completely fresh level. You won't be disappointed!

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Features include up to 32,000 records, 20 fields per record, and 99 elements per field, user-definable printing and screen layouts, fast indexing/sorting facilities and automatic data re-organisation. As well as this, unused data space is not wasted, making AtLast Plus an essential database for PCW 8256 owners.

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# Subscribe to the leading Amstrad PCW magazine and we'll send you essential goodies worth over £12!

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Ask anyone who knows; they'll tell you 8000 Plus contains more up-to-date, informative and unbiased information about its chosen subject than any other you're likely to find.

And in case you need a bit more persuading, we've put together a gift pack that will appeal to anyone who uses a PCW, professional or hobbyist. You'll wonder how you ever got along without them! Worth more than £12, we're putting them your way just as soon as we can. It's the easiest way to becoming the complete PCW owner!

### THE 8000 PLUS GIFT PACK

- **THREE** blank Amstrad 3-inch discs (suitable for any PCW, drive A or B)
- **TWO** packets of colour-coded disc labels (40 in total)
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## HACKERS HANDBOOK III

by Hugo Cornwall • **£6.95**



There is no other book like this! Hugo Cornwall clears up all the mystique of hacking, while also providing an exacting code which all hackers would do well to use as both map and compass.

A bestseller when it first came out, this new edition goes from first comms principles to networks, videotex, radio computer data – all written in entertaining prose that carries you along with the enthusiasm of discovery. For the general reader and specialist alike.

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### Subscribe already?

If you'd like a gift pack, but already have a subscription to 8000 Plus, you can buy the pack at a special discount price of £8.95. Just tick the relevant option on the form.



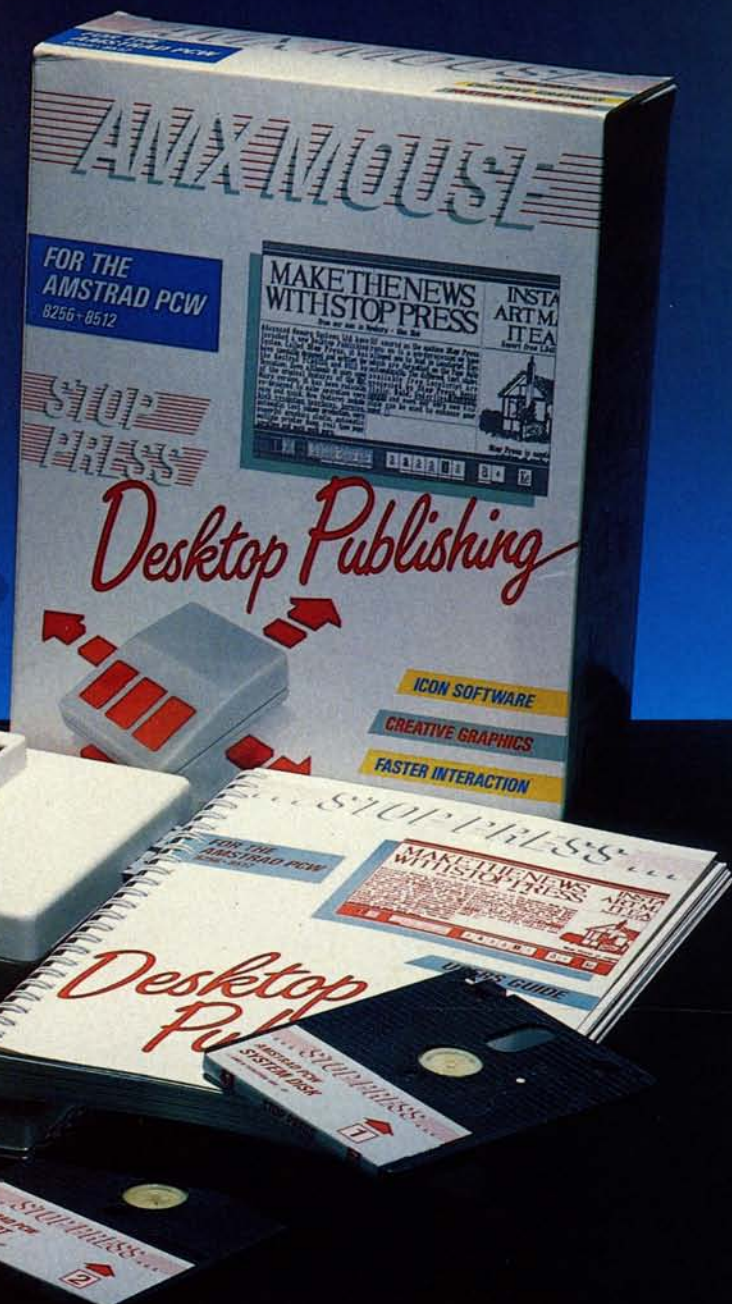
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**AND THERE ARE EXOTIC FONTS**  
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 So Whatever You Want You will find  
**One to Suit -**  
 And it doesn't quite fit, you'll have to  
 Or else **Stretch it to fit**

▲ 'Just some of the fonts available on AMS' Stop Press'



Desktop publishing – doing page makeup on your computer instead of the old cut-and-paste method – is the boom area of home computing. All the national dailies are switching over to DTP methods – and so are thousands of PCW owners, to produce newsletters and flyers.

Want to try your hand? The best developed DTP package for the Amstrad PCW range is now available from Future Publishing at an all-in price of £74.99. Stop Press's incredibly versatile and powerful software plus mouse will turn your PCW into a DTP machine.

The Swiss-made mouse is probably the best currently available and offers high resolution movement all over the screen. The software makes the best possible use of this sensitivity, featuring as it does a wide range of DTP facilities which would probably cost three times as much on higher-priced computers.

Just a few of the features are: -

- 14 different fonts supplied
- Type sizes from 9 to 96 points
- Clip art ready made to insert into files
- Text entered **directly** or **imported** from word processor
- On-screen text formatting, including **autoflow** around a picture
- **Draw, spray or paint** - your own designs or those supplied
- Up to **nine columns** per page!
- Bold, italics, underline, reversed boxes
- Centering, ragged right and literal justification
- Prints up to **108 pages** in one go
- **Shape drawing** includes triangles, squares, cubes, circles and ellipses
- Compatible with **digitised pictures** from MasterScan, Electric Studio and the Rombo digitiser
- **9512 compatible** using an Epson compatible dot matrix printer

Altogether, this is a superb way of getting to grips with DTP. We don't expect to offer any other DTP package through these pages again, because we've held back until we were absolutely sure that this was the best deal. So here's your chance to get going.

Save £15 on the manufacturer's recommended retail price by placing an order with our mail order department (telephone 0458 74011)!

Newsletters, fanzines, posters, letter heads, leaflets, charts, graphic business reports, flyers... all are now within reach, allowing your imagination as much freedom as possible. And with Stop Press there's no better way into the world of DTP.

**Order Code 8023**



## Dodge the draft

No doubt I am missing something simple but using Supercalc 2 on a PCW8512 and printer I cannot obtain a print-out other than in approximately 17 pitch and in draft.

I have loaded the DDFXHR8.PRL file and tried to use it but without any change in the print resolution or pitch. I have tried altering the set-up codes when using the /O(utput) command, again, without success. Can you help please?

**Geordie Hayward**  
Easingwood

**8000 PLUS** After typing SC2 to get SuperCalc going, you can change the print quality with the [PTR] key. Press it and move the cursor to the 'draft' quality box and press [+] to change it to 'high' quality.

To change the print size, give the /O command for 'output' as normal and choose D or C for 'display' or 'contents'. But before choosing P for 'printer' take S for 'setup', then enter S again to set up the codes and choose from the following to select various styles of print:

Condensed: [ALT]O on, [ALT]R off; bold [EXIT]G on, [EXIT]G off; enlarged text [ALT]N on, [ALT]T off; italic [EXIT]4 on, [EXIT]5 off; underline [EXIT]-1 on, [EXIT]-0 off; pica (10 point) text [EXIT]P; elite (12 point) text [EXIT]M; superscript [EXIT]SO on; subscript [EXIT]S1 on; super or subscript off [EXIT]T. All these are case-sensitive, ie. when you see a capital you must enter a capital. [RETURN] finishes and P prints.

I hope you're making a note of these, there'll be a short test after class.

## Good taste

Becky my 4 month old daughter couldn't understand what Daddy found so interesting in your brightly coloured magazine that he kept picking up and reading. So she decided to find out for herself. Now, as you can see from the photo, although she doesn't fully understand the finer points of CP/M like Daddy, she now devours it from cover to cover!

**Clifford A Ward**  
Northants



# POSTSCRIPT

A melange of malevolence, munificence and metaplasms marshalled by a methodical Ed.

PostScript: as ever, you have the last word. The pages written by you for you – to inform, educate, and entertain. Youngest and oldest PCW users in the world, how to use Scale Pitch, what to do if your PCW is struck by lightning... It's all here.

Send your holiday postcards, grumbles, ideas, opinions, compliments and lawsuits to the forum for all PCW knowledge at: *PostScript, 8000 Plus, 4 Queen St, Bath BA1 1EJ.*

## Only if the PCW makes it

Mr J F Maunders's letter refers to using an Amstrad at the age of 84. He does not say how old he was when he started using it. I was 83 last May and since then have learned to use an Amstrad, never having used a computer or word processor before. I aim to produce my own programs before I am 90!

**A Carleton Crooke**  
Guilsfield

**8000 PLUS** Another nice reminder, not that it's needed for such a diverse bunch as PCW owners, that the idea of computers being a young people's preserve is a myth.

## CAPITAL GESTURE

I refer to your May issue of 8000 Plus and your article headed 'Yuppies corner'. Part of the way through this article you refer to the word Filofax printed with a lower case f. As Filofax is the registered trademark of this company it should always be printed with the capital letter inferring that it is a trademark and not a generic term.

**David Collischoon**  
Managing Director, Filofax

**8000 PLUS** I'm flattered that you read 8000 Plus so keenly. 'Filofax' may be registered, but it is quickly becoming an uncapitalised generic term like hoover,



"I HOPE THE BETTERING UNDER THIS CARTOON DOESN'T UPSET THE FILOFAX PEOPLE"

**FILOFAX**  
ESTABLISHED 1921

petrol, muzak, sellotape and so on.

However, we shall be delighted to spell the word with a capital F in future. Perhaps you ought to remind the people who designed your own letterhead that 'Filofax' is a registered trademark and should always be printed with a capital letter.

## Screen for help

In the tipoffs section of Issue 22 of 8000 Plus there is a shared article about reversing the screen colour when using Locoscript. The

authors were Christopher Barry and David Mendel.

My problem is that the machine responds with a ? after typing in 17500[RETURN]; there is no sign of any assembly language. My other problem is that I only use the PCW for word processing, and am an absolute ignoramus when it comes to CP/M.

**B Hallam**  
Derby

I have just wasted a lot of time not being able to change my LocoScript screen to black-on-green as described by the letter from Christopher Barry and David Mendel. The misprint problem I overcame but not that of finding the correct address on version 2.16 which is the one I have. Maybe I am not so bright but I still think your lot don't try hard enough.

**A M A Soulioti**  
Liverpool

**8000 PLUS** Sorry we didn't have space for all versions of LocoScript, but as LocoScript 2 is now up to version 16 and LocoScript 1 goes up to 4, as there are also hard disc versions, and as each version of LocoScript comes out in a dozen or so national variants, not to mention Welsh and Arabic and Urdu, it would be tricky to cover them all. So we tried to give enough information for readers to find out for themselves.

That 17500 (seventeen



# POSTSCRIPT

thousand five hundred) is actually 17500 (the letter I followed by seven thousand five hundred) and similarly the number 1 is actually the letter I. Not a misprint, it's just that unfortunately they look similar in the Courier typeface we use for text the user types in, rather than the text of the tipoff.

The address you want to change in LocoScript 2.16, assuming you have a non-hard disc English version, looks like 78B6.

## Email is a load of s4&/x##!

I recently invested a fistful of my hard earned beer tokens in getting connected into the new wonder of the future, Electronic Mail. So why is this letter sent by the old fashioned stamp on the envelope system? Well you do not give us an Email address and the envelope with an 18p stamp on it works. That is why I simply cannot get my very complicated system to sort out using discs and as for other than Microlink I am out of the picture.

To use the system means terrible phone bills or trying to decipher the mysteries of PSS. As I am only human I will pay the phone bills. The books you get on the system are as badly written and obscure as any in the computer industry - there can be no worse criticisms than that. The final blow was when I wasted money on a magazine devoted to Electronic Mail. As they themselves do not give an Email number in their addresses they are obviously cowboys. But then I read the adverts - remember these people are advertising in a magazine devoted to electronic mail. Two gave contact which was in the area of Email. The rest were all strictly steam type communicators. Three of them were advertising training courses or books on the wonders of Email. Without an Email address they are simply bald men selling hair restorer.

The computer industry has had more than its share of cowboy

## Not to scale

I am wondering whether your reply to H E Weston in July issue Postscript has left him 'much the wiser'. Scale pitch is a subject which perhaps is better covered by way of example.

The advantage of having scale pitch is that you can switch around character sizes in most documents without having to worry about changing ruler lines and particularly margin settings. Consider the following:

typed, the optimum character size set for each line and then each line centred - simple and straightforward. By contrast, if this was typed using a wordprocessor having 'floating' rather than set scale pitch, the margins would need to be re-set for each line to avoid the possibility of the larger type words shooting off the edge of the page and to ensure the centering was consistent throughout the page.

can be decidedly awkward - this particularly applies to documents where TABS are important in controlling the layout. Consider the following:

### FINANCE DEPARTMENT

Jeremiah Smith ext 12345  
Alan Sugar ext 45678

### PERSONNEL

Bill Carruth  
Tom Jones  
Mavis Bloppe

This could be typed after simply setting the TABS in what appeared to be right spacing in the ruler, but this is how it would appear on the screen:

This produces the desired end result, but what a horrible display for the typist to view. If many

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RHS VIDEO - CHELSEA FLOWER SHOW

Admission: Members 60p, Non-members 80p incl Refr

\* Please note change of date from that announced prev.

The margins were first set on the default (pi12) ruler, the words

However, there are applications where this approach

organisations but the Email really has brought a new brand of rip off artists out of the wood work. As one who has learnt the hard, expensive way, I say to you, stay off Email until you are convinced that you must have it for a specific application. The present systems will die out soon, and be replaced by some more practicable systems - like the proverbial elephant to remember the ridiculous key stroke sequences to become connected.

David Walton  
Crowland

**8000 PLUS** Couldn't agree more. There's obviously a lot of potential in Email, but right now it's simply too complicated and unreliable to use for any but the real enthusiasts.

## Pirateship

I have been interested in your letters on piracy and copyright. When I bought SuperCalc2 a couple of years ago the shop was reluctant to give a demonstration

because, he said "Only three copies can be made". I took the disc home and made a pig's ear of preparing a working copy. I went back to the shop and was told I had copied all I needed and had only failed to copy the installation programs, again he was not prepared to rectify my blunder using the excuse that it would use up one of my allowed three copies.

In those early days before 8000 Plus the stodgy magazines available stressed the need to make a master copy of programs as well as a working copy; since then I have upgraded to an 8512 and copied SC2 along with all other programs on to a B disc. I must now have made 3 copies but only one from the original. The shopkeeper certainly gave the impression that SC2 would self destruct if a fourth copy was attempted; does it? Or is it a matter of trust?

I notice that while the original SC2 disc has printed on it in small type that 'you may make three (3) copies of the Program', the instruction manual does not mention this limitation and seems to give the impression that making back up copies is to be encouraged, which to me implies that the more the merrier even if this goes beyond three.

John Lodge  
Lancaster

**8000 PLUS** Well, in clinical trials our SuperCalc 2 disc was copied much more than three times and we're still here. We don't know of any commercial program for the PCWs which 'knows' how many copies have been taken of it, still less take any

punitive action should the magic figure be exceeded, though other machines and programs may have this (Quark, the desktop publishing program for the Macintosh, cannot physically be copied more than three times).

The manufacturers trust that you won't go giving copies to your friends, or break the licensing agreement by using ten copies on your battery of PCWs at work. SuperCalc 2 has a manual, which you need, to use your program effectively, so a pirate copy isn't much good anyway.

The two generally used copy protections are making discs uncopyable by putting the information on in a weird way to confuse PIP or DISCKIT (eg. Scrabble, Tetris, and many other games) or using 'dongles'. These are small plastic adaptors which go in between your keyboard plug and the monitor socket and scramble the keyboard input in a special way. Without them, you can't run the program.

Thus, in contrast to the problems posed by a copy protected disc which might get corrupted and need to be replaced by the manufacturer, users can make as many copies as they like for their own use but pirate versions given away to friends won't run without that dongle. Locomotive use them on their foreign versions of LocoScript (French, Arabic/Urdu etc) to stop large scale piracy abroad.

## DEF ears

Gee, thanks for publishing my tip-off ('BASIC integrity', July, p64). But 'somewhere in your program' is not equivalent to 'somewhere in the introduction to the program'. Any of your poor readers who follow your edition of the text literally will find that DEFINT will



"MAYBE WE SHOULD GET THEM TO SEND IT IN BY POST..."



names had to be entered, you would be tempted to run off a print every few minutes to check it was coming out as intended.

The answer is to set up your

ruler to scale pitch 17, together with TABS and margins to directly represent the desired layout. The display on the screen would then largely resemble that to appear in print, if somewhat wider as the standard screen characters are of course in larger than 17, necessitating sideways scrolling of the screen to type in and view all of the document.

**Reg Osborne**  
Pitton, Salisbury

MANUFACTURING DEPARTMENT		
ext 23456	Joe Carruchio	ext 34567
ext 56789	Joe Bugner	ext 67890
ext 78901	Scream Lord Sutch	ext 89012

```

8000PLUS: Editing text. Printer file: Using A:
Script 1: 0 File LSI Chw LPS Page 1 Line 1/34
1=Actions 2=Layout 3=Style 4=Size 5=Page 6=Spell 7=Options 8=
FINANCE DEPARTMENT: PERSONNEL DEPARTMENT: MANUFACTURING DEPARTMENT:
Jeremiah Smith,ext 12345,Bill Carruthers,ext 23456,Joe Carruchio,ext 34567
Alan Sugar, ext 45678,Tom Jones, ext 56789, Joe Bugner, ext 67890
+ + Mavis Bloggs, ext 78901, Scream Lord Sutch,ext 89012
  
```

set to zero any numeric variables which were declared before the DEFINT command has been read by BASIC.

**Stephen Younger**  
St Andrews, Fife

## Kind words

It was kind of you to put my letter, concerning a program input data on photographic slides for subsequent sorting, into the July issue of 8000 Plus.

I received the first response, from an Iain Lang in London by phone (before I'd even received my own copy of 8000 Plus) - followed by a long letter of how Iain is attempting to use the Mini-office Professional program for his slide sorting, plus illustrative screen dumps.

You forwarded me a letter from Margaret Cox, who has the program FOTOFIE - available from Sophos, Pantagolau, Llanbedr, Gwynedd, LL45 2HS, which is the program I had read about and I have written to thank her.

However, the most amazing response was from someone living less than a mile away from me and who, like me, had been made redundant from the headquarters of our local electricity board in the past 2 years and who has got FOTOFIE! Now we're aiming to get together to get our slides sorted out literally.

I think the response is a fine indicator of the goodwill of the readers of 8000 Plus - a spirit that comes through the pages of your magazine, which is way above any

other, especially for such as me with no computing knowledge but a desire to wring everything possible out of the Amstrad.

**E J Holmes**  
Stourbridge

## Bouquet shop

After reading so many complaints in your letters page regarding

## Bug paper

Your July issue article on DTP packages let Fleet Street Editor Plus off rather lightly in one important respect. You say that "early versions" did have some bugs. In fact the program is as full of bugs as a rotten log. I have found so many that I have lost count. You also do not mention that the program will only read single density discs in Drive B and, because of bugs, sometimes not even that.

I do not usually write to magazines, but was induced to do so in this case for two reasons. I was intrigued to note that your sample of FSE+ output included, without comment, one of the bugs. If you look at the text you will see many gaps within words in the left hand and top

half of the centre column. If you ask the person who prepared it he may remember removing and re-inserting these pieces of text. That is when it occurs. If he tried editing the removed text in the text editor he may also remember what happens then!

My second reason is that you say "later versions have hopefully sorted this out". Do you know whether there are actually later versions. Mirrorsoft refuse to answer the letters in which I have detailed some of the bugs and asked this very question. My latest effort was adorned at the top as this one is; I do not think that it can have got overlooked. I sent it on 25 June and have heard nothing so far. Would you be willing, on behalf of your

that.

I do not usually write to magazines, but was induced to do so in this case for two reasons. I was intrigued to note that your sample of FSE+ output included, without comment, one of the bugs. If you look at the text you will see

dealers, mail order companies, etc. I feel I must write to you regarding Silicon City of Redruth, Cornwall whose service is excellent.

On the 8th June, after much deliberation, I ordered a FD4 disk drive and a set of RAM upgrade chips for my PCW 8256. On the 11th June I received a very polite letter explaining about the increase in the price of the chips, asking if I still wished to purchase and returned my cheque. I replied on the 13th enclosing a cheque for the new amount, £10 more. My drive and chips arrived by recorded mail on Friday 17th and a friend (the next door neighbour) fitted them for me over the weekend.

Unfortunately the drive would not work and so on Monday, 20th I phoned Silicon City. They were extremely helpful and offered to send me a new screening case. This arrived on Tuesday with sufficient stamps to return the old case; however, the drive still did not work. I phoned them again on the Wednesday and was offered a replacement drive, that arrived this morning and was fitted this evening, it works perfectly.

Two weeks from original order to fitted and working, would be impossible for many firms, but with a letter, two phone calls and three packages through the post, Silicon City must deserve any best service award going (perhaps the Post Office should get a pat on the back

as well?). They were courteous, helpful and most of all efficient.

The neighbour will get free drinks in the local on Saturday night as a thank you but Silicon City deserve more.

**Ms J E Baddeley**  
Macclesfield

## A bit qwerty

On a recent trip to London I bought the Mini Office

"IT'S THE KGB - THEY WANT TO KNOW HOW YOU CAN CRAM SO MANY BUGS IN SUCH A SMALL SPACE..."



readers, to ask them the question a little more forcefully than I am, apparently, able to do?

A tourist leaving Turkey is reported to have said "It will be very nice when they have finished it." I feel somewhat the same way about Fleet Street Editor Plus.

**E A Hobart**  
Cheltenham

**8000 PLUS** We got the latest version of FSE for our review from Mirrorsoft who admitted that early editions were full of serious bugs. The page we put together for illustration had been with the very first version because we didn't have the new version before the deadline for artwork. The problems you mention aren't apparent on the new FSE although there may be fresh bugs lurking somewhere.



# POSTSCRIPT

Professional package. Soon I discovered each of the programs runs a keyboard driver, which sets a QWERTY keyboard. As you might know, the standard keyboard in Belgium, France and some other countries is AZERTY, so the programs are difficult to use. I tried SID to reconfigure the keyboard driver, but I'm not much of a hacker and couldn't work it out. I wonder if there's such a hacker at 8000 Plus or amongst your readers who can help me (and some others; I can't be the only one on this side of the continent who tries to use MOP).

**Steven Boyen**  
Brussels

**8000 PLUS** Mini Office (and the Desktop Publisher) is available in a special French edition from Database on 0625 878888.

## Strike one

Please help me! I recently bought a PCW 8526 and lent it to a friend



"I GOT THE IDEA WHEN MY PCW WAS STRUCK BY LIGHTNING..."

until I had safely moved house. During this short period, she experienced a severe electrical storm and lightning struck the computer, burning out the fuse in the plug. It was not, unfortunately, fitted with a surge protector.

I would now like to move the computer to its true home, but first I would like to check it for damage, as my friend is well insured. Apart from writing and printing a short document, what can I do to check its health? I seem to remember a complicated test card gadget.

My non-computerate friends are rolling in the aisles over this incident, clutching their trusty biros, but oddly enough I can't see the joke!

**Mrs Naomi Parker**  
Orpington

**8000 PLUS** If it's still writing and printing short documents OK there'll be no problem. I suppose, like any electrical appliance, the PCW should be disconnected during a storm. If lightning never strikes twice in the same place, maybe you should leave it where it was.

## Price of fame

Thank you for your review of Mr DTP Graphic Library discs in the August issue which on the whole was balanced and acceptable.

However, I feel strongly that your comment on the price differential with the other packages was somewhat unfair for the following reasons;

1. The HD Design discs are advertised in the same issue (one page on from the review!) at £12.50 each not £7.99 as stated in the review.
2. The price of £7.45 quoted for the Electric Studio disc is, according to their recent adverts, a 'super spring sale price' (half price offer), and I feel this should have been pointed out for comparative purposes.

Your comment in the Waddsoft review that 'One problem is that the program ... (Databases,

Desktop Publisher) reverses everything on screen so that it is difficult to see how good a piece of clip art is until you have printed it out' is misleading. The program has the facility, accessible through the 'Options' menu to invert the screen colours so that you can view graphics and text on screen as they will be printed out. This facility can be saved to your start-up disc as a default setting.

**Gareth Price**  
Lowestoft

## TV fantasy

Do you know of a product that will enable me to receive CEEFAX and ORACLE direct to my PCW? If such a product exists will I be able to store pages, edit and print them?

**E F Raine**  
Huddersfield

**8000 PLUS** Well, you presumably could do it from your TV if you record the pages on video and use a digitiser, but then they would be saved as graphics pages and not editable text.

Prestel works a bit like Ceefax and Oracle but because Prestel uses lots of pretty frames and graphics it can be tricky to transfer information from it into a text file. It's free to register with Prestel, standing charge is £6.50 per month and the connection charge is 6p per minute peak rate, free at cheap rate. You'll need a modem (£100+) an RS232 interface (£60+) and a communications software package (£25+) though.

## LocoScript vs Protex: Round 38

I had been using "Locoscript" until the pressure of your advertising persuaded me to invest in the relatively faster Protex. That was just before Locoscript 2 came on the market. Meantime, there is one useful facility of Locoscript which I cannot find the equivalent of in Protex. This is the Inscript

summary facility ([f2] in the disc manager) of the former. When doing masses of daily correspondence in Protex, one runs out of useful document names, by which to identify the records for later reference.

**John Dukes**  
Stretton-on-Fosse

**8000 PLUS** Yes, but you can easily find out the contents of a Protex file whose name gives you no clue to what it's about by going into command mode (even if you're editing another file) and entering TYPE X03\_88.DOC or whatever the name is. The file will be typed to screen almost straight away until you [STOP] - arguably a more convenient and quicker way of doing it than by Loco's 'identify text'.

## Unskilled manual

As one, who with many other readers, has learnt the hard way with Mini Office Professional that a piece of software is only as good as its documentation, I read your rating of Brainstorm (4/5) with concern.

I feel that software distributors are unfairly exploiting the budget end of the market by their refusal to provide clear well written documentation, of which the stupidity of Brainstorm's disc appears to be the latest.

I would happily pay a further £10 or so for software with intelligently written documentation. Indeed it seems that, if I am to have full use of Mini Office Professional I will have to buy John Hughes new guide at £11.95.

Contrary to the letter from N J Carter, I have recently found the documentation for Locofont and Locokey amongst the best yet. They contain a superb balance between short cuts for the experienced, and detailed clear instructions for the inexperienced... distributors please note.

**Tom Allen**  
Leeds

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